THE KALĀS

INAUGURAL DISSERTATION

PRESENTED TO THE

PHILOSOPHICAL FACULTY OF THE
UNIVERSITY OF BERN

FOR THE

DEGREE OF DOCTOR

OF PHILOSOPHY

BY

A. VENKATASUBBIAH

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PREFACE

In the following pages I have attempted to give an account of the various 'arts and sciences' (Kalās) which are mentioned in Indian Literature, chiefly, with the object of contributing towards its elucidation. The object of the essay being more literary than historical, I have not endeavored to follow the development of the arts from the beginning and to discuss the influence of other civilisations upon them as well as the part played by each art in the civilisation of India. All this, however interesting and useful, is outside the scope of this essay, which confines itself to giving the names of all the Kalās that I was able to find in Indian Literature. There are, thus, nine lists of Kalās given here with their various readings. Another list differing from all the above ones is mentioned as occurring in the Kalpasaṃhitā (a book whose name is not found in the Catalogus Catalogorum) by Jīvagosvāmin. His commentary to the Ṣrīmad Bhāgavata actually gives the first three items of this list—'paracittajnatā' (telepathy), dūraṣravaṇadūradarṣanacintā (clairaudience and clairvoyance) and 'ratnāmṛitaviṣeshanirmāṇaṃ' (making of various kinds of precious stones and elixirs of life).

In conclusion, I desire to acknowledge the deep debt of gratitude which I owe to Prof. Müller-Hess, under whose guidance these pages were written, for his many acts of kindness towards me during my stay in Bern.

A. V.

THE KALĀS

Students of Indian Literature cannot proceed very far in their studies without meeting with the word 'Kalāh'* in the sense of 'arts' or 'sciences' Sanskrit Literature and the literature of the Buddhists and the Jains abound in references to the Kalās. Thus, for example, we find the Kalās referred to in the following places:—

मुनिवेशप्रतिच्छन्ना स्तत्र गच्छन्तुयोषितः ।
उपायज्ञाः कलाज्ञा श्च वैशिके परिनिष्ठिताः ॥

(Let women who are clever, know the Kalās and who live by courtesanship, go there, hidden under the guise of sages.)

Rāmāyaṇa, I. 9. 5.

नानाशिल्पकलाज्ञश्च भवेरपिपरन्तप ।

(Become learned, O destroyer of foes, in the different arts and sciences.)

Rāmāyaṇa, Vol. I., p. 301-5.

अहोरात्रैश्चतुःषष्ट्या संयत्तौ तावतीः कलाः ।
गुरुदक्षिणयाचार्यं छन्दयामासतुर्नृप ॥

* The word kalā is also used to denote—1/16th part of the moon, 1/50th part of the 'praṇavā or the syllable' Oṃ, 1/16th part of 'purusha', a fraction of time, a fraction of the zodiacal circle, interest on capital, etc. See Ṣabdakulpadruma and also Tārānātha's Dictionary *sub.* 'kalā.'

[O king, these two,—(*i.e.* Krishṇa and his brother Balarāma)—having in sixty-four days learned as many Kalās, pleased their preceptor by the offer of fees.]

Sṛīmad Bhāgavata, X. 45-36.

इत्येवमाद्यासु सर्वकर्मकलासु.........बोधिसत्व एव विशिष्यतेस्म

(In all the Karma-kalās, beginning with the above-mentioned ones, the Bodhisatva alone was pre-eminent.)

Lalitavistara, p. 179.

चतुः षष्टिकामकलितानि †चानुभविया
नूपुरमेखला अभिहनी विगलितवसनाः ।
कामसराहता स्समदनाः प्रहसितवदनाः
किन्तव आर्यपुत्र विकृतं यदि न भजसे ॥

(What abnormality is this in you, O Āryaputra, that you do not receive us, who are wounded by the arrows of Kāma; us, who have experience in the sixty-four Kāma-kalās; us, whose clothes have slipped off, whose faces are smiling, and whose girdles and anklets are tinkling from fervid passion?)

Lalitavistara, p. 417.

अपरोक्षबुद्धिर्विविधविकल्पाश्रयासु कलासु ।

(Whose mind was no stranger to the different Kalās.)

Jātakamālā, p. 105.

लेहाइयाओ गणियप्पहाणाओ सउणरुयपज्जवसाणाओ बावत्तरिं कलाओ.

(The seventy-two Kalās consisting chiefly of 'gaṇita'

† कलितानि = कलाः

etc., beginning, with 'lekha', and ending with 'ṣakunaruta.')

Kalpa Sutra, p. 74.
Aupapātikaṃ, p. 77.
Prasṇavyākaraṇaṃ, p. 321, etc.

मातृवदस्याः कला स्सन्ति न सन्ति ।

(Are the Kalās to her like a mother or not?)

Mahābhashya I. 1, 57; quoted
in Ind. Studien, 13, p. 471.

चतुःषष्टिकलागमप्रयोगचतुरः

(Skilled in the knowledge and practice of the sixty-four Kalās.)

Daṣakumāracarita, II. 21.

अयं सकलकलाप्रवीणः.........भूसुरकुमारः ।

(This Brahmin boy skilled in all the Kalās.)

Ibid. I. 27.

उत्पत्तिःकलानाम्

(The source of the Kalās.)

Kādambarī, p. 5.

निखिलशास्त्रकलावगाहगम्भीरबुद्धिः ।

(Whose intellect is profound by having mastered all the sciences and arts.)

Ibid. p. 56.

The Kalās are referred to frequently in Vātsyāyana's Kāmasūtra, *e.g.*, in pages 42, 95, 177, etc.

They are also mentioned by later writers such as Vāmana, Māgha, Bhavabhūti, etc. Daṇḍin, the author of the Kāvyādarṣa, seems to have even written a book upon them called 'Kalāpariccheda.' (See Peterson's Introduction to Daṣakumāracarita, p. 5.)

The word Kalā comes from the root 'kal' (kalayati) meaning 'to go,' 'to know;' कल गति-सङ्ख्यानयोः, Dhāt. 35, 13.)

As regards the number of the Kalās, Vātsyāyana and the Srīmad Bhāgavata speak of sixty-four; the Jain books uniformly mention seventy-two, while the Lalitavistara refers to sixty-four Kāmakalās and at the same time mentions 86 Kalās and adds इत्येवमाद्यासु *et cetera* (p. 179). Yaṣodhara, in his commentary to the Kāmasūtra (p. 32), says that there were 512 Kalās! The later Sanskrit writers, however, give the number of Kalās as 64, whenever they mention the number; *e.g.*,

इत्थं कलाचतुःषष्टिविरोध स्साधु नीयताम् ।

Kāvyādarṣa, III. 171.

And this number—namely 64—seems after all to have been the original one. For, in p. 95 of his Kāmasūtra, Vātsyāyana says that the number of Kāmakalās was fixed as 64 on the analogy of the Ṛigveda-Saṃhitā; *i.e.*, the subdivisions of the 10 divisions of the Kāmasūtra were called 'catuḥ-shashṭi,' because the subdivisions of the 10 Maṇḍalas of the Ṛigveda-Saṃhitā are 64, and because the names of the authors are the same—Pancāla. The Jaina Sūtras, too, which, according to Jacobi, were composed about 300 B. C., speak of चऊसट्ठिं महिलागुणे (Praṣnavyākaraṇa, p. 321 and 458; Vipākasūtra, p. 55, etc.). The commentator, Abhayadeva, takes this term to mean the 64 Kāmakalās mentioned by Vātsyāyana (आलिङ्गनादीना मष्टानां क्रियाविशेषाणां वात्स्यायनाभिहितानां प्रत्येकं अष्टभेदत्वा चतुःषष्टि महिलागुणा भवन्ति;

गीतनृत्तादयोवा स्त्रीजनोचिता वात्स्यायनाभिहिता श्चतुःषष्टिरेव.

Prasnavyākaraṇa, p. 321.

आलिङ्गनादीनां अष्टानां कामकर्मणां प्रत्येकं अष्टभेदत्वेन चतुःषष्टि र्महिलागुणा वात्स्यायनप्रसिद्धाः.

Ibid. p. 458.

Judging by these two traditions, the list of 64 Kāmakalās (Pancāla's list) seems to be very old, as it seems to have been composed before the Jaina Sūtras, and at a time when the division of the Ṛik-Saṃhitā into 64 chapters was felt as recent.

I shall now give the different lists of Kalās as found in various books.

List I. (Samavāyasūtra).

1. लेहम् *i.e.*, लेखम्—Writing of various scripts. The 4th Upanga, Pannavaṇā Bhagavayī (p. 62) as well as the Samavāya Sūtra (p. 54) give a list of 18 scripts—Bambhī, Javaṇāliyā, Dāsāpurisā, Kharuṭṭī, Pukkharasāriyā, Bhogavaiyā, Paharāiyā, Antakkhariyā, Akkharapuṭṭhiyā, Veṇaiyā, Niṇhaiyā, Aṃkalivī, Gaṇitalivī, Gandhavvalivī, Āyāsalivī, Māhesarī, Domilī, Polindī. For another list of 18 scripts, see Ind. Stud. 16, p. 401, Kalpāntarvācyāni, Berliner Verzeichnis, II. p. 663, and Nandīsūtra, pp. 376, 377.
2. गणियम् *i.e.*, गणितम्—Computation.
3. रूवम् *i.e.*, रूपम्—Sculpture, painting, cutting forms in cloth, gold, wood, etc.
4. नट्टम् *i.e.*, नृत्यम्—Dancing. The Rāja. mentions 32 modes of dancing, pp. 90-95.
5. गीयम् *i.e.*, गीतम्, *v.l.* गायम् } Singing.

6. वाइयम् *i.e.*, वाद्यम्—Playing on musical instruments: Malayagiri's commentary on the Rāja. gives the names of 58 musical instruments beginning with ṣankha, ṣṛinga, ṣṛingikā, peyā, etc., (pp. 82-84).

With regard to 4, 5, 6, compare Brahmajāla-sutta, Dīgha. I. 6.

7. सरगयम् *i.e.*, स्वरगतम्—Knowledge of the 7 'svaras'—shadja, ṛishabha, gāndhāra, etc., according to Megharāja, Sīlānka, Harṣhakūla and the author of the Kalpāntarvācyāni. Comp. 'saraṃ', Sūtra. 2. 2. 26.

8. पुक्खरगयम्—Playing the 'pushkara', a kind of drum; compare 'ekapokkharā' Jātaka, VI, p. 21.

9. समतालम्—Probably for 'sammatālaṃ,' Sanskṛit 'ṣamyātālaṃ' or 'ṣampātālaṃ,' (See Ṣabdakalpadruma) a kind of cymbal. Cp. 'sammatālaṃ ca vīnām ca' Jātaka VI. 277, 6, Milindapanha 60, Theragāthā, 893, 911.

Megharāja and the author of the Kalpāntarvācyāni, however, interpret this term as 'beating time correctly to music (tālamāna).'

10. जूयम्—Gambling. Compare 'jūtapamādaṭṭhānānuyoga' (addicted to games and recreations), Brahmajāla, Dīgha. I. 6.

11. जणवायम्—People's talk *i.e.*, common rustic talk. Megharāja explains this term as 'the art of speaking and discussing with people'.

12. पोरेवच्चम् *v.l.* पोरेकव्वम्; पोरेकच्चम् } Citizens' talk *i.e.*, courteous language, as opposed to rustic talk. Megharāja and the author of the

Kalpāntarvācyāni explain this term as 'the art of ruling and protecting a city' and 'the art of being in the forefront' respectively.

13. अट्ठावयम्—A game played on a board of 64 squares. Compare 'abhyasyatā ashṭāpadavyāpārāṇi (practising movements in the game of 'ashṭāpada') Kādambarī, p. 88.

14. दगमाट्टियम्—The art of mixing water and clay, according to Megharāja.

15. अण्णविहिम्—Rules relating to food; *i.e.*, how to prepare food, etc. Compare 'annasannidhi' Dīgha. I. 6.

16. पानविहिम्—Rules relating to drink; how to prepare drinks, etc. Compare 'pānasannidhi', Dīgha. I. 6.

17. लेणविहिम्—Rules relating to dwelling places.

18. सयणविहिम्—Rules relating to beds. Compare 'sayanasannidhi', Dīgha. I. 6.

19. अज्जपहेलियम्—Verses in Āryā metre, and riddles. 'Āryā' is the name given to a certain class of metres, which includes 'āryā' proper, gīti, etc. For 'prahelikā', see No. 28 in List III.

This term is given as 2 words 'ajjaṃ' and 'paheliyaṃ' in some copies of the Samavāya.

20. मागहियम्—Verses in the Māgadhī language.

21. गाहम्—The Gāthās.

22. सिलोगम्—Slokas *i.e.*, verses in Sanskṛit.

23. गन्धजुत्तिम्—Preparation of perfumes by mixing different substances. See Chap. 77, Bṛihat Saṃhitā.

24. मधुसित्थम्—Wax; *i.e.*, probably, wax-modelling. Comp. Vyut. 245, 709. How to mix and use the 6

'rasas'—'madhura,' 'amla,' 'lavaṇa', etc., according to Megharāja!

25. आभरणविहिम्—Rules relating to ornaments.

26. तरुणीपडिकम्म—How to adorn a young maiden. Comp. 'itthikumārikā patiggahaṇaṃ (accepting women and girls)', Dīgha. I. 5.

27. इत्थीलक्खणम्—Marks of women. Comp. Sūtra. 2.2.26. Bṛihat Sam., Chap. 70.

28. पुरिसलक्खणम्—Marks of men. Cp. Sūtra. 2.2.26. See Chap. 68, Bṛihat Sam.

29. हयलक्खणम्—Marks of horses. Cp. Sūtra. 2.2.26. See Bṛihat. Chap. 66.

30. गयलक्खणम्—Marks of elephants. Cp. Sūtra. 2.2.26. See Bṛihat. Chap. 67.

31. गोणलक्खणम्—Marks of bulls. Cp. Sūtra. 2.2.26. See Bṛihat. Chap. 61.

32. कुक्कुडलक्खणम्—Marks of cocks. See Bṛihat. Chap. 63. Compare Sūtra. 2.2.26.

33. मिण्ढलक्खणम् *v.l.* मिढयलक्खणम् } Marks of goats. See Chap. 65 of Bṛihat Saṃhitā. Compare 'meṇḍalakkhaṇaṃ,' Digha. I. 9. Sūtra. 2.2.26.

34. चक्कलक्खणम्—Marks of discuses. Cp. Sūtra. 2.2.26.

35. छत्तलक्खणम्—Marks of umbrellas. See Bṛihat Sam. Chap. 73. Compare Sūtra. 2.2.26.

36. दण्डलक्खणम्—Marks of sticks. Comp. Sūtra. 2.2.26.

37. असिलक्खणम्—Marks of swords. See Bṛihat. Chap. 50. Comp. Sūtra. 2.2.26.

38. मणिलक्खणम्—Marks of gems. See Bṛihat Sam. Chap. 80-83; and Garuda Purāṇa, Chap. I. 68—I. 80. Comp. Sūtra. 2.2.26.

39. कागणिलक्खणम्—Marks of Jewels. Comp. S.B.E. xlv. 366; Divya, 396-8, and Sūtra. 2.2.26.

40. चम्मलक्खणम्—Marks of shields. Compare Sūtra. 2.2.26.

41. चन्दलक्खणम्
v.l. चन्दयलक्खणम् } Probably a mistake for 'canda-cariyam' (movement of the moon.) Comp. Sūtra. 2.2.27. Megharāja, however, explains this word as 'the knowledge of when the moon will be eclipsed, etc.'

42. सूरचरियम्—Movement of the sun. Comp. S. B. E. xlv. 366, Divya. 630 and Sūtra. 2.2.27.

43. राहुचरियम्—Movement of Rāhu.

44. गहचरियम्—Movement of the planets. Compare Divya. 630.

45. सोभागकरम्
v.l. सोभाकरम् }—Art to make one happy. Comp. 'subhagākaraṇaṃ' Dīgha, I. 11; 'subhagākaraṃ', Sūtra. 2.2.27, S. B. E. xlv. 366. See Bṛihat. Chap. 75, and p. 37 in Indrajālavidyāsaṃgraha.

46. दोभागकरम्
v.l. दोभाकरम् } Art to make one miserable. Compare 'dubbhagakaraṇaṃ' Dīgha, I. 11; 'dubbhagākaraṃ' Sūtra. 2.2.27; S. B. E. xlv. 366. See Indrajālavidyāsaṃgraha, p. 73.

47. विज्जागयम्—What is contained in the Vidyās. The number of Vidyās is given sometimes as 14 (Vāyu Purāṇa, Chap. 61-78), and sometimes as 18 (Vāyu Purāṇa, 61-79; Jātaka, I. 399, I. 463, etc.) They consist of the 4 vedas, 6 Vedāngas, and the Purāṇas, Itihāsas, Logic, etc.

48. मन्तगयम्—What is contained in the 'Mantras'.

49. रहस्सगयम्—What is contained in the 'Rahasyas'.

50. सम्भावम्—Obscure; probably what happens in the future. Compare 'sambhāvanā' Vyut. 245, 884.

51. वारम् } The poison craft. Compare Dīgha. I. 9;
v.l. चारम् } Abhidhānacintāmaṇi, 1314.

The Benares edition gives terms 51 and 52 as 1 word—'sabhāsancāraṃ'.

52. पडिवारम् } Antidotes to poisons; *i.e.*, how to
v.l. पडिचारम् } administer antidotes to poisons.

53. वूहम्—Vyūhas; *i.e.*, arrangement of the army in different shapes; *e.g.*, like a cart, lotus, vulture etc. Comp. Dīgha. I. 6, Vinaya, IV. 107. Manusmṛiti, VII. 187, 188, 191.

54. पडिवूहम्—Counter-Vyūhas.

55. खन्धावारमाणम्—Measurement of camps.

56. नगरमाणम्—Measurement of cities.

57. वत्थुमाणम्—Measurement of houses.

58. खन्धावारनिवेसम्—How to lay out a camp; encamping.

59. नगरनिवेसम्—Building cities.

60. वत्थुनिवेसम्—Building houses.

61. ईसत्थम्—Shooting arrows.

62. छरुप्पवायम्—Sword-strokes. Compare Divya 100; 'tsarusmiṃ', Mahāvastu, III. 184-8; Vyut. 217-10 (corrected from 'sarau'); and 'tharu-gaṇhanaṃ', Jātaka III. 420-9.

63. आससिक्खम्—Breaking and training of horses.

64. हत्थिसिक्खम्—Training of elephants. Compare 'hasti-ṣikshām aṣvaṣikshām' Mahābhārata, II. p. 80.

65. धणुवेदम्—The science of the bow. Cp. Vyut. 216-9.

66. हिरण्णवादम् v.l. हिरण्णपागम् — Melting, combination, reduction to powder etc., of silver, according to Megharāja.

67. सुवर्णपागम्—Melting, combination, etc., of gold.

68. मणिपागम्—Melting, combination, etc., of precious stones.

69. धाउपागम्—Melting, combination, etc., of minerals. Compare 'dhātuvādin' (metallurgist) Vyut. 186, 84.

70. बाहुजुद्धम्—Fighting with hands.

71. दण्डजुद्धम्—Fighting with sticks.

72. मुट्ठिजुद्धम्—Fighting with fists, boxing.

73. अट्ठिजुद्धम्—Fighting with bones (!); perhaps for 'asi-juddhaṃ' Cp. List IX. 68. This term is not given in the Benares edition.

74. जुद्धम्—Fighting.

75. निजुद्धम्—Fighting in a *melee.* Comp. 'nibbuddhaṃ', Dīgha. I. 6; Cullavagga, I. 13-2; Milinda, 232.

For terms 71-76, compare Dīgha. I. 6.

76. जुद्धातिजुद्धम्—Fighting so as to surpass another's fighting, according to Megharāja.

77. सुत्तक्खेड्डम्—Playing with string. Compare no. 26 in list III.

78. नालियाखेड्डम्—Playing with arrows. In Dīgha. I. 7, Rhys Davids translates 'nālikaṃ' by 'reed-cases for drugs'. The meaning 'arrow' (see B.) seems to be better here. See also Zachariae: Beiträge zur indischen Lexicographie p. 85. Megharāja explains this term as

'playing with lotus-stalks'. Cp. 'nālīkau padmanārācau' Trikaṇḍaṣesha, 581.

79. वट्टखेड्डम्—*i.e.*, 'Vṛittakrīdā' playing with songs; comp. Jāt. III. 447. The author of the Kalpāntarvācyāni explains this term as 'playing with cloth.'

80. धम्मखेड्डम्—Playing with bows. Cp. 'dharmo hiṃsopamāyogopanishatsu dhanushshvapi' Trikāṇḍaṣesha, 851.

81. चम्हरेवत्तम्—Obscure. The Benares edition gives instead 'cammakheddaṃ'—(playing with shields.)

82. पत्तछेय्यम्—Trimming of leaves in different shapes and figures. Comp. Bṛihatkathā IX. 2. Kuṭṭanīmataṃ, Verse 74, Ayārāngasutta, II. 12, Vyut. 186-122.

83. कडगछेय्यम्—Making of eardrops, bracelets, etc., out of gold, etc. (Megharāja).

84. पत्तगछेय्यम्—Cutting or trimming of leaves.

This term is not given in the Benares edition.

85. सजीवम्—Gambling with animate things; *i.e.*, betting on cocks, horses, etc.

86. निर्जीवम्—Gambling with inanimate things—dice, etc. Comp. 'sajīvam' and 'nirjīvam' in p. 31 of Vātsyāyana's Kāmasūtra and Daṣa. I. 42-2. Megharāja and the author of the Kalpāntarvācyāni explain the above two terms as 'infusing life into artificial forms of men and animals' Cp. 'Vetāliṃ' (art of raising a stick to life) and ('taking away life'). Sūtra. 2.2.27 and Childer's Pāli Dictionary.

87. सउणरुयम्—Knowledge of the cries of birds. Comp. 'ṣakunavidyā' Divya. 630.

Of these, only 72 enter into the list of Kalās; the remaining Kalās, remarks Abhayadeva, are included in those 72 which form the list.

The above list is given in Indische Studien **16**, in the Berliner Verzeichnis, II. 410, and the Benares edition of the Samavāya Sūtra. In all of these, the number of items given exceed 72.

The Nāyādhammakahā, (p. 29), the Aupapātikaṃ, (p. 77) and the Rājapraṣnīya (p. 290) give lists of Kalās which contain exactly 72 items. These lists, though substantially the same as the Samavāya list, yet contain some terms not found in it. These 3 lists, too, differ from each other in slight respects.

Thus the Nāyādhammakahā list runs thus:—

(The nos. refer to the Samavāya list.)

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, Pāsayaṃ (A kind of play with dice, compare 'suvaṇṇapāsake' Jat. VI. 281-11; I, 290-1, etc.), 13, Porekavvaṃ, 14, 15, 16, Vilevaṇavihiṃ (Rules concerning ointments), Vattavihiṃ (Rules concerning cloths), 18, Ajjaṃ, Paheliyaṃ. 20, 21, Gītiyaṃ (A species of Prākṛit verse), 22, Hiraṇṇajuttiṃ (Combination of silver), Suvaṇṇajuttiṃ (Combination of gold), Cuṇṇajuttiṃ (Adding powder to melted copper, etc., so as to turn it into gold; see Kathāsaritsāgara, VII. 1, 82-90), 25, 26, 27, 28, 29, 30, Gaṇalakkhaṇaṃ, 32, 35, 36, 37, 38, 39, Valthuvijjaṃ (The art

of building houses), 55, 56, 53, 54, 51, 52, Cakkavūhaṃ (Arranging an army in the shape of a wheel), Garulavūhaṃ (Arranging an army in the shape of 'garuda' *i.e.*, a kite), Sagadavūham (A 'vyūha' in the shape of a cart), 74, 75, 76, 73, 72, 70, Layājuddhaṃ (Fighting with bine), 61, 62, 65, 66, 67, 77, 79, 78, 82, 83, 85, 86, 87.

List II. (Lalitavistara).

This list is given in p. 178, Lalitavistara.

1. लङ्घितम्—Jumping. Vyut. 217-25. Comp. 'laṃghane plavane tathā', Rāmāyaṇa, Vol. I. 306-19.
2. प्राक्चलितम्—Leaping.
3. लिपिमुद्रागणनासङ्ख्यासालम्भधनुर्वेदाः—Writing, 'mudrās', computation, numbers, wrestling and the science of the bow.

लिपि (Vyut. 217-2) means writing. On p. 143 of the Lalita. are mentioned the names of 64 scripts—Brāhmī, Kharoshṭhī, Pushkarasārī, etc. Compare Daṣakumaracarita, I. 11-13, 'sakalalipijnānam', and I. 1.*

मुद्राः (Vyut. 217-3) are figures formed by the hand—sometimes with one, sometimes with both—or by the fingers of the hand. They are said to possess much occult power and are described fully in books on Tantra. Rhys Davids' translation of 'mudrā' as 'counting on the fingers' (Dīgha. I. 11) seems to be wrong. (See B. and B. R.)

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* Roman figures followed by Arabic figures refer to the lists and the items therein given, when no book is mentioned.

गणना (Vyut. 217-5) means computation. On p. 169 of the Lalita. are mentioned different varieties of computation, dhvajāgravatī, etc. Cp. I. 2.

सङ्ख्या (Vyut. 217-4) means numbers, enumeration. On p. 169 are given many numbers beginning with 'koṭi', 'ayuta', 'niyuta', etc.

सालम्भ (Vyut. 217-26) means wrestling. See p. 174. Lalita.

धनुर्वेदः is the science of the bow. Compare 'saṃkhyāyāṃ gaṇanāyāṃ mudrāyāṃ' etc. Divya. 3-17, 'muddāgaṇanāsankhālekhāsippaṭṭhanesu' Mil. 59. 13 and I. 65.

4. जवितम्—Running. (Vyut. 217-27.)

5. प्लवितम्—Diving. (Vyut. 217-28). Compare 'laṃghane plavane tathā', Rāmāyaṇa, Vol. I. 306, 19.

6. तरणम्—Swimming. Comp. 'nadyāditaraṇe', Mahāvastu, III. 184-8.

7. इष्वस्त्रम्—Shooting arrows. Cp. I. 61, and 'īsatthaṃ', Jāt. VI. 77-26; 81-12, etc.

8. हस्तिग्रीवा—The elephant's neck; *i.e.*, riding on elephants. (Vyut. 217-30.)

9. रथः—The chariot. (Vyut. 217-32.)

10. धनुष्कलापः—All things connected with the bow. (Vyut. 217-33.)

11. अश्वपृष्ठम्—Horseback; *i.e.*, riding on horseback. (Vyut. 217-31.) As regards 8 and 11, compare Daṣakumāracarita, I. 11, 17, 'mātangaturangādivāhanārohaṇapāṭavaṃ', and 'aṣvapṛishṭhe rathe nāge', Rāmāyaṇa, Vol. I. 301. 3.

12. स्थैर्यम्—Steadiness.

13. स्थाम—Strength.

14. सुशौर्यम्—Valour.

15. बाहुव्यायामः—Gymnastics. (Vyut. 217-34). Cp. 'kuṣalo vyāyāmeshu tathaiva ca', Rāmāyaṇa, Vol. I. 306-17.

16. अङ्कुशग्रहपाशग्रहाः—Holding the 'Aṅkuṣa' and 'Pāṣa' (two weapons). (Vyut. 217-9.)

17. उद्यानिर्याणम्—Going up and going off.

18. अपयानम्—Going away. (Vyut. 217-15.)

19. मुष्टिबन्धः—Clenching the fists. (Vyut. 217-6). Cp. Divya. 58-100.

20. शिखाबन्धः—Tying the 'ṣikhā' or tophair of the head in a knot. (Vyut. 217-7). Cp. Divya. 58-100.

Rhys Davids translates 'ṣikhā' as necklaces, Dīgha. I. 7, which seems to be incorrect; see B. R. under 'ṣikhā'.

21. छेद्यम्—Cutting. (Vyut. 217-16.) Comp. Divya. 100-442.

22. भेद्यम्—Piercing. Cp. Vyut. 217-17, and Divya. 100-442.

23. तरणम्—Guiding a boat or ship.

24. स्फालनम्—Beating. (Vyut. 245-1254).

25. अक्षुण्णवेधित्वम्—Art of throwing a spear so as to graze the mark. (Vyut. 217-22.) Cp. Divya. 58-100; 'akkhaṇavedhi', Jāt. II. 91, l. 11; III. 322, l. 22. Morris is of opinion (see p. 29 of the Journal of the Pāli Text Society, 1884) that the Sanskṛit word 'akshuṇṇavedhi' comes from the Pāli word 'akkhaṇavedhi'

and means 'one who shoots like lightning'. Cp. also 'akkhaṇavedhivālavedhisaddavedhisaravedhinaḥ' Jātaka, V. 129, ll. 17, 26.

26. मर्मवेधित्वम्—Shooting so as to hit the vital parts. Cp. Vyut. 217-21, Divya. 58-100.

27. शब्दवेधित्वम्—Shooting an arrow correctly at any invisible person or beast by the sole clue of the sound produced by them. Cp. the story of Ekalavya in the Mahābhārata (Ādi.), and of Daṣaratha (Rāmāyaṇa, II. 65); compare also Vyut. 217-20; 'saddavedhi', Mahāvaṃṣa, 143; Vipākasūtra, p. 100; and Jātaka, V. 129, ll. 17, 26; 'ṣabdavedha', Divya. 100-442, and 'ṣabdavedhigandha,' Mahāvastu, II. 213-5.

28. दृढप्रहारित्वम्—The dealing of firm blows. Cp. Vyut. 217-23, Divya. 58-100.

29. अक्षक्रीडा—Playing with dice. Cp. Vyut. 245-939.

30. काव्यव्याकरणम्—Belles Lettres and Grammar.

31. ग्रन्थरचितम्—Writing of books.

32. रूपम्—Sculpture; creating forms in gold, wood, etc. Cp. I. 3.

33. रूपकर्म—Painting.

34. अधीतम्—Studying.

35. अग्निकर्म—Production of fire; probably, by rubbing two pieces of wood.

36. वीणा—The Vīṇā; *i.e.*, playing on the Vīṇā. Vyut. 218-18.

37. वाद्यनृत्यम्—Playing on musical instruments and dancing. Cp. I. 6.

38. गीतपठितम्—Singing and reading.

39. आख्यातम्—Reciting (stories, etc.). Cp. 'ākhyānaṃ', Vyut. 245-723.

40. हास्यम्—Fun. (Vyut. 245-726, and 220-5). Cp. 'hāsyakāraka', Mahāvastu, III. 113-4.

41. लास्यम्—Dancing to instrumental music. (Vyut. 245-727.)

42. नाट्यम्—Dancing in imitation of others, *e.g.*, peacocks, etc.

43. विडम्बितम्—Imitation (of others' actions, speech, posture, etc.). Cp. 'velambaka', Mahāvastu, III. 1133.

44. माल्यग्रन्थनम्—Stringing of flowers into garlands.

45. संवाहितम्—Massage. Cp. 'sambāhanaṃ', Digha. I. 7 and no. 44, List III.

46. मणिरागः—Colouring of precious stones. Cp. no. 40, List III.

47. वस्त्ररागः—Dyeing of cloth. Cp. 8 in List III.

48. मायाकृतम्—Production of 'māyā' or illusion. Cp. Daṣakumāracarita, I. 11, l. 17. 'maṇimantraushadhādimāyāprapancacuncutvaṃ'.

49. स्वप्नाध्यायः—Interpreting dreams. Cp. 'supinam', Dīgha. I. 9; Sutra. 2.2.26.

See also, Berliner Verzeichnis, II. 94 and 269; Purāṇasarvasva, Oxford Catalogue, 866.

50. शकुनिरुतम्—Knowledge of the cries of birds. Cp. I. 87.

51. स्त्रीलक्षणम्—Marks of women. Cp. I. 27.

52. पुरुषलक्षणम्—Marks of men. Cp. I. 28.

53. अश्वलक्षणम्—Marks of horses. Cp. I. 29.

54. हस्तिलक्षणम्—Marks of elephants. Cp. I. 30.

55. गोलक्षणम्—Marks of bulls and cows. See chap. 61 in Brihat Saṃhitā.

56. अजलक्षणम्—Marks of goats. See chap. 65 in Brihat.

57. मिश्रितलक्षणम्—Obscure. Foucoux conjectures that this is a mistake for 'meṇṭhalakshaṇaṃ' (marks of rams); see his translation, II. p. 130. Cp. also 'meṇḍalakshaṇaṃ' Dīgha. I. 9; also 27 in List I.

58. कैटभेश्वरलक्षणम्—Obscure; a kind of script (Monier-Williams). (Vyut. 221-6.)

59. निर्घण्टुः—Lexicon. (Vyut. 221-5.)

60. निगमः—Revealed Scripture.

61. पुराणम्—The Purāṇas. (Vyut. 216-17 and 245-724.)

62. इतिहासः—The Itihāsas. (Vyut. 216-18 and 245-725.)

63. वेदाः—The Vedas.

64. व्याकरणम्—Grammar.

65. निरुक्तम्—The Nirukta; Etymology.

66. शिक्षा—The Śikshā; Phonetics.

67. छन्दः—Metrics. With regard to 63-69, comp. Daṣa. I. 11-13, 'shadangasahitavedasamudāyakovidatvaṃ'.

68. यज्ञकल्पः—Rules for conducting sacrifices; the Kalpa-sūtras.

69. ज्योतिः—The Science of the stars. (Vyut. 216-14.)

70. साङ्ख्यम्—The Sāṃkhya philosophy. (Vyut. 216-4.)

71. येागः—The Yoga philosophy. (Vyut. 216-11.)

72. क्रियाकल्पः—Kāvya and Alaṃkāra. Cp. 56 in List III.

73. वैशेषिकम्—The Vaiṣeshika philosophy.

74. वेशिकम्—The Veṣika philosophy; the tenets of this system are now not known. Comp. 'kāvilaṃ vesiyaṃ logāyataṃ saltṭṭhitantaṃ' etc., p. 391, Nandīsūtra; (p. 92), Anuyogādvārasūtra.

With regard to 59 to 74 generally, compare 'riuveda-jajuveda-sāmaveda-ahavvaveda-itihāsa-pancamāṇaṃ nighaṇtuchaṭṭhāṇaṃ cauṇhaṃ vedāṇaṃ samgovamgāṇaṃ sarahassāṇaṃ . . . . saṭṭhitantavisārae saṃkhāṇe sikkhākappe vāgaraṇe chande nirutte jotisāṃ ayaṇe . .', p. 148, Bhagavatī-sūtra, and Aupapātikaṃ, Berliner Verzeichnis II. 539.

75. अर्थविद्या—Science of wealth; *i.e.*, Political Economy and Politics. Compare Daṣa I. 11. 'kautilya-kāmandakīyādinītipaṭalakauṣalaṃ'.

76. बार्हस्पत्यम्—The science enunciated by Bṛihaspati; *i.e.* probably here, the Cārvāka or Lokāyata philosophy, which, it is said, was first given out by Bṛihaspati. See Sarvadarṣanasaṃgraha on the Cārvāka philosophy; see also Hemacandra's Abhidhānacintāmani, 862.

77. आश्चर्यम्—Wonder; *i.e.*, probably, wonderworking. (Vyut. 245-759.)

78. आसुरम्—Demoniacal magic.

79. मृगपक्षिरुतम्—Cries of birds and beasts; Cp. Lalita. 144 (Beal), and 'Mṛigacakraṃ', S.B.E. xlv. 366; also, no. 50 in this list, no. 87 in List I, and 'ṣakunavidyā', Vyut. 221-12.

80. हेतुविद्या—The Nyāya philosophy.

81. जतुयन्त्रम्—Machines of lac, probably death-dealing. Perhaps, this is a mistake for

'satṭhitantra' (—a system of philosophy—). See Bhagavatī, p. 148, Indische Studien, **17**, 9, and p. 362 in Max Müller's 'India. What it can teach us?'.

82. मधूच्छिष्टकृतम्—Wax-modelling. Cp. 24 in List I. (Vyut. 245-709.)

83. सूचीकर्मन्—Needle work. Cp. 25 in List III.

84. विदलकर्मन्—Work of separating, sawing, etc.

85. पत्रच्छेद्यम्—Cutting or trimming of leaves so as to represent various figures. Cp. 82 in List I.

86. गन्धयुक्तिः—Mixing different substances to make perfumes. Comp. 18 in List III, 23 in List I. Vyut. 245-696 and 'gandhasannidhi' Dīgha. I. 6.

List III. (Vātsyāyana).

This list is given in Vātsyāyana's Kāma-sūtra, pp. 32, 33; and with slight variations in the commentaries of Ṣrīdhara, Jīvagoswāmin, Vallabhācārya and Ṣukadeva on Ṣrimad Bhāgavata, X. 45-36. Ṣrīdhara there says that he has taken the list from the Ṣaivatantra. This list of Ṣrīdhara is, again, given in the Ṣabdakalpadruma and Tārānātha's Lexicon —Vācaspatyabṛihadabhidhānaṃ—under 'kalā'. Vātsyāyana's list is given in Aufrecht's Catalogue of the Oxford Manuscripts. Further, this same list is given in Molesworth's Marāthi-English Dictionary under 'causashṭa-kalā' (p. 297).

The interpretations given here follow those given by Yaṣodhara in his commentary Jayamangalā on the Kāmasūtra.

4

1. गीतम्—Singing. Cp. I. 5, II. 38.

2. वाद्यम्—Playing on musical instruments. Cp. I. 6, II. 37.

3. नृत्यम्—Dancing. Cp. I. 4, II. 37.

4. आलेख्यम्—Painting. Cp. I. 3, II. 33.

5. विशेषकच्छेद्यम्—Trimming of leaves etc., to represent various figures for the purpose of wearing on the forehead. Cp. I. 82, II. 85.

6. तण्डुलकुसुमबलिविकाराः—Arrangement of ricegrains and flowers (of different colours) in different ways for the purposes of worship. The extract in Aufrecht's list from the scholium explains this word as ' making of ear-ornaments '!

7. पुष्पास्तरणम्—Covering or decorating a house or room with flowers.

8. दशनवसनाङ्गरागः—Applying colours to the teeth, body and clothes. Cp. II. 47.

9. मणिभूमिकाकर्म—Construction of floors with gems; mosaic work. The scholiast explains this word as 'the making of dolls'.

10. शयनरचनम्—Making of beds. Cp. I. 18.

11. उदकवाद्यम्—Playing on water so as to produce the sound of a 'muraja' (drum), etc.

12. उदकघातः—Striking others (in jalakrīḍā) with handfuls of water. Compare 'udakakīḷā', Dhammapada 307, 'udake hāsadhamme pacittiyaṃ', Vinaya, IV. 112, and 'udakaharshaṇaṃ', Vyut. 261-68. Jīvagosvāmin explains this term by 'jalastambha' (suspending the properties of water). Cp. VII. 28.

13. चित्राश्वयोगाः—Causing others, by means of drugs, medicines, invocations, etc., to become weak, prematurely greyhaired, mad, etc. See pp. 369, 370 of the Kāmasūtra.

14. माल्यग्रथनविकल्पाः—Stringing of flowers into garlands in various ways. Cp. II. 44.

15. शेखरकापीडयोजनम्—Wearing of 'ṣekharakas' and 'āpīdakas'—two ornaments worn on the head—in their proper places.

16. नेपथ्यप्रयोगाः—Dressing one'self or others. Cp. I. 25, 26.

17. कर्णपत्रभङ्गः—Making of ear-ornaments (out of ivory, etc.).

18. गन्धयुक्तिः—Preparation of perfumes. Comp. I. 23, II. 86.

19. भूषणयोजनम्—Making of ornaments. The Commentator remarks that the term literally means 'the wearing of ornaments in their proper places', a meaning which is included in no. 16 above. He therefore explains it as 'the making of ornaments'.

20. ऐन्द्रजालायोगाः—Processes of Indrajāla *i.e.*, producing illusions—such as Gods, serpents, armies, etc. See Daṣa. I. 32. Cp. II. 48, 77, 78.

21. कौचुमाराश्वयोगाः—Prescriptions of Kucumāra (for becoming stronger, more virile, etc.). See Kāmasūtra, pp. 365-370.

22. हस्तलाघवम्—Readiness of hand, *i.e.*, quickness in doing all things, according to Yaṣodhara and Böhtlingk. The scholiast, however, interprets this as 'stealing things, even when persons are present'.

23. विचित्रशाकयूषभक्ष्यविकारक्रिया—Preparation of various vegetables, soups and condiments.

24. पानकरसरागासवयोजनम्—Preparation of different kinds of drinks—'pānakas', 'rasas', etc.

25. सूचीवानकर्माणि—Sewing, weaving, knitting, plaiting. Cp. 'sūcīkarma' II. 83 and Vyut. 245-698. The Petersburgh Dictionary has the reading 'sūcīvāpakarmāṇi'.

26. सूत्रक्रीडा—Playing with strings, *i.e.*, holding a string in the fingers and making it assume the outline of a house, temple, etc. Cp. I. 77. Jīvagosvāmin interprets this term as 'making figures move by pulling threads'.

27. वीणाडमरुकवाद्यानि—Playing on the Vīṇā, the Damaru (a kind of drum) and other musical instruments. Cp. II. 36, 37.

28. प्रहेलिका—Riddles. (Vyut. 245-945); *e.g.*, apado dūragāmī ca sāksharo na ca paṇḍitaḥ ।
amukhas sphuṭavaktā ca yo jānāti sa paṇḍitaḥ ॥
The answer is 'a letter'. For further examples see Subhāshitaratnabhāṇḍāgāram, pp. 191-193 and the Kuntāpa hymns of the Ṛig and Atharva Vedas. Cp. I. 19.

29. प्रतिमाला*—A game; one person recites a 'ṣloka', another follows with one beginning with the last letter of that 'ṣloka' and so on (antyāksharī.) Cp. 63 in Appendix E.

30. दुर्वाचकयोगाः—Another game; each participator recites 'ṣlokas' bristling with hard syllables.

* Cp. शेषमक्षरमादाय प्रातिश्लोकं क्रमेण यत्। अन्योन्यं पठ्यते श्लोकः प्रतिमालेति सा मता ॥ Hārāvalī, 17.

31. पुस्तकवाचनम्—Reading of books.

32. नाटकाख्यायिकादर्शनम्—Knowledge of dramas and stories.

33. काव्यसमस्यापूरणम्—Composition of poetry; the last quarter of a 'ṣloka' being given, the composition of the first three, the whole giving a sensible meaning. For examples, see Kāvyādarṣa, Subhāshitaratnabhāṇḍāgāraṃ, pp. 188-191 and Ballāla's Bhojacarita.

34. पट्टिकावेत्रवानविकल्पाः—Making of different things (*e.g.*, cots and seats) from canes and reed.

35. तक्षकर्माणि—Cutting *i.e.*, working in gold, steel, wood, etc., of 'apadravyas'. (For the explanation of this term see Kāmasūtra, p. 368.)

36. तक्षणम्—Carpentry.

37. वास्तुविद्या—The science of houses; how houses should be built, on what sites, with what materials, etc. Cp. 'vatthuvijjā' Dīgha. I. 9, and chap. 53 in Bṛihat.

38. रूप्यरत्नपरीक्षा—Testing of precious stones and coins. Cp. I. 38.

39. धातुवादः—The combination, purification, precipitation, etc., of minerals. Cp. I. 69.

40. मणिरागाकरज्ञानम्—Knowledge of the processes of dyeing crystals and precious stones, and of the location and working of mines.

41. वृक्षायुर्वेदयोगाः—Medicine for plants; *i.e.*, knowledge of the processes for making trees and plants healthy and sound, for making them abnormally small or big, etc. See chap. 55 in Bṛihat.; Kuṭṭanīmataṃ, Verses 123-124.

42. मेषकुक्कुटलावकयुद्धविधिः—Making rams, cocks and 'lāvakas,' fight. Cp. Dīgha. I. 6, Kāmasūtra, p. 313.

43. शुकसारिकाप्रलापनम्—Teaching male and female parrots to speak words. Cp. Kāmasūtra, p. 313.

44. उत्सादने संवाहने केशमर्दने च कौशलम्—Proficiency in massaging the head, and the body with hands and feet. Cp. II. 45.

45. अक्षरमुष्टिकाकथनम्—Finding out the meaning of groups of letters. *e.g.*, 'mevṛimikasiṃkatuvṛidhamakuṃmi' stand for the names of the twelve months 'Mesha', 'Vṛishabha' etc.

46. म्लेच्छितविकल्पाः—Varieties of cipher languages; *i.e.*, languages which are unintelligible to all except the initiated.

47. देशभाषाविज्ञानम्—Knowledge of the languages of various countries. Cp. Daṣa. I. 11, l. 13, 'nikhiladesīyabhāshāpāṇdityaṃ'.

48. पुष्पशकटिका—Cart of flowers; *i.e.*, making carts, horses, elephants, palanquins, etc., of flowers (to send love-letters in). According to Trikāṇḍaṣesha (II. 401) and Hārāvalī (222), 'pushpaṣakaṭī' means an 'upaṣruti'.

49. निमित्तज्ञानम्—Knowledge of good and bad omens. See Bṛihat. chap. 86-91.

50. यन्त्रमातृका—Construction of machines for locomotion, water and war purposes, etc. See Kathāṣaritsāgara, VI. 3, 17-50.

51. धारणमातृका—Science of remembering things. Holding cloths and other things in the hands, according to Vallabhācārya.

52. सम्पाठ्यम्—A game; one person recites a 'ṣloka', which is unknown to another, who, however, has to repeat it after him. The Oxford Catalogue (217^{a}-16) reads 'samvācyaṃ' (conversation).

53. मानसी—Another game; one person writes a 'ṣloka' with 'anuswāra' and 'visarga' as they are but with crosses in place of the other letters. The other player has to write the correct letters in place of the crosses.

54. काव्यक्रिया—Composing poems. Cp. II. 31.

55. अभिधानकोशछन्दोविज्ञानम्—Knowledge of Lexicons and Metrics.

56. क्रियाकल्पः—'Kāvya' and 'Alaṃkāra'. Cp. II. 72.

57. छलितकयोगाः—Processes of deception, *i.e.*, disguising the person and voice so as not to be recognised or so as to pass for another.

58. वस्त्रगोपनानि—Hiding of dresses; deception as to dress; *i.e.*, wearing a short cloth so that it may not appear short, etc. Cp. 'gopanaṃ', Vyut. 261-71; and 'pācittiya', Vinaya, IV. 122, 60.

59. द्यूतविशेषाः—Varieties of gambling. Cp. I. 85, 86; Daṣa. I. 11, l. 18, 'durodarādikapaṭakalāpraudhatvaṃ.'

60. आकर्षक्रीडा—A particular kind of gambling with dice.

61. बालक्रीडनकानि—Games for children; *i.e.*, games with balls, dolls, etc.

62. वैनयिकीनां विद्यानां ज्ञानम्—Knowledge of the sciences and arts which educate a person.

63. वैजयिकीनां विद्यानां ज्ञानम्—Knowledge of the sciences which confer victory.

64. व्यायामिकीनां विद्यानां ज्ञानम्—Knowledge of the sciences connected with physical exercise; *e.g.*, swimming, wrestling, etc.

The Variants are given in pp. 32, 33 of the Kāmasūtra in the form of foot notes. The list of Ṣrīdhara in his commentary on Ṣrīmad Bhāgavata, X. 45-36 is substantially the same, but there are slight variations and additions. Thus, between 3 and 4, he reads 'nātyaṃ' (dancing in imitation of others). 6 he gives as 'taṇḍulakusumabaliprakārāḥ', 13 he gives as 'citrayogāḥ', 18 as 'sugandhayuktiḥ', 21 as 'kautumārayogāḥ', 23 as 'citraṣākāpūpabhakshyavikārakriyā', 25 as 'sūcīkarma', 26 is left out. He reads no. 34 as 'paṭṭikāvetrabāṇavikalpāḥ', and 35 as 'tarkakarmāṇi'; he decomposes no. 40 into 2 terms—'maṇirāga jnānaṃ', and 'ākarajnānaṃ'; 44 he decomposes into two—'utsadānaṃ' and 'keṣamārjanakausalaṃ'. He joins 48 and 49 and reads them as one; 50 and 51 he reads as one, 52 he reads as 'saṃvācyaṃ' 53 and 54 he reads as one, he decomposes 55 into two, and he reads no. 64 as 'vaitālikīnāṃ vidyānāṃ jnānaṃ'.

Molesworth has the same list as Ṣrīdhara, but in a haphazard order of his own and with some additions. He has the following items which are not found in Ṣrīdhara's list—'vīṇādamurakavādyāni', 'prahelikākūṭavāṇīvijnānaṃ', which he translates as 'solution of riddles, enigmas, covert speech, and verbal

puzzles', 'pushpavaṭikānimittajṇānaṃ' (floriculture), 'yantramatṛikādhāraṇamatṛikāsaṃvācyaṃ' (art of forming mystical diagrams and of addressing spells, binding amulets, etc.), 'ākārajnāna' (judgment or connoisseurship of mines and quarries), 'utsāhanaṃ' (inciting, animating, stimulating), 'krauncasāraṇayogāḥ' (art of assuming disguises, characters, and deceptive forms).

(The translations above given are those of Molesworth.)

The other items of his list are the same as in Ṣrīdhara's list, but his translations are different.

आलेख्यम्—Writing and drawing.

विशेषकच्छेद्यम्—Tattooing or the making of spots, lines or figures on the person by puncturing and staining.

तण्डुलकुसुमबलिप्रकार—Investigating and arraying (an idol, etc.) with rice and flowers.

नेपथ्ययोग—Scenic representation, stage-playing.

उदकवाद्य—Playing on musical glasses with water.

उदकघात—Arresting and accumulating water in aqueduct-cisterns or reservoirs.

चित्रयोग—Picturemaking, limning, decorating, etc.

सूत्रक्रीडा—Making of parrots, flowers, tufts etc., out of yarn or thread.

प्रतिमाल—Casting or moulding of images.

दुर्वाचकयोग—Device or strategy for outwitting and overcoming the wicked.

नाटकाख्यायिकादर्शनम्—Histrionic or scenic representation.

पट्टिकावेत्रबाणविकल्प—Practice with sword, singlestick, quarterstaff, bow and arrow, etc., fencing, archery.

वृक्षायुर्वेदयोग—Art of determining the age of trees and plants.

अक्षरमुष्टिकाकथन—Art of divining the contents of a closed hand.

क्रियाविकल्प—Knowledge of processes and methods in general.

आकर्षकक्रीडा—Art of drawing into one's possession (as by Mantras) of the property of others.

म्लेच्छितकविकल्प—Discrimination of foreign languages (from Sanskṛit).

वैनयिकीनां वैजयिकीनां वैतालिकीनां च विद्यानां ज्ञानम्—Knowledge of the several departments of conjuration, charming and devilcraft.

The above list comprises all the words which Molesworth has translated differently. Of these translations, it is necessary to remark that most of them are incorrect and show that the translator had a very superficial knowledge of Sanskṛit (see his translations of 'vṛikshāyurvedayoga', 'paṭṭikāvetrabāṇavikalpa,' etc.) Some of the translations, though not incorrect, are not so appropriate here as the meanings given by the commentator.

List IV. (Kādambarī).

This list is given in p. 75 of Bāṇa's Kādambarī.

1. पदम्—Grammar.—Cp. II. 64.
2. वाक्यम्—Logic.—Cp. II. 73, 80.

3. प्रमाणम्—The system of Pūrva-mīmāṃsā, propounded by Jaimini.

4. धर्मशास्त्रम्—Law, *i.e.*, treatises on law such as those of Manu, etc.

5. राजनीतयः—Treatises on politics like those by Kāmandaka, Cāṇakya, etc.; Politics. Cp. II. 75.

6. व्यायामविद्याः—Sciences concerned with physical exercise, *e.g.*, swimming, wrestling, etc. Cp. II. 15, III. 64.

7. चापचक्रचर्मकृपाणशक्तितोमरपरशुगदाप्रभृतयःआयुधविशेषाः—Bow, discus, shield, sword, 'ṣakti', 'tomara' (Vyut. 217-12), axe, mace and other weapons.

8. रथचर्याः—Driving of chariots. Cp. II. 9.

9. गजपृष्ठानि—Backs of elephants, *i.e.*, elephant-riding. Cp. II. 8.

10. तुरङ्गमाः—Horses; *i.e.*, riding on horses. Cp. II. 11.

11. वीणामुरजकांस्यतालदर्दुरपुटप्रभृतीनि वाद्यानि—Musical instruments like the Vīṇā (Vyut. 218-18), the flute, the 'Muraja' (Vyut. 218-6), 'Kāṃsyatāla' 'Darduraputa', etc. Cp. III. 27, II. 36, 37, and I. 6.

12. भरतादिप्रणीतानि नृत्तशास्त्राणि—Books on dancing, written by Bharata, etc. Cp. I. 4, II. 37, 42, III. 3.

13. नारदीयप्रभृतयो गन्धर्ववाद्यविशेषाः—Science of music, as taught by Nārada and others.

14. हस्तिशिक्षा—Training of elephants. Cp. I. 64.

15. तुरगवयोज्ञानम्—Judging of the age of horses.

16. पुरुषलक्षणम्—Marks of men. Cp. I. 28, II. 52.

17. चित्रकर्म—Probably, composition of poetry in so-called 'citras'. (See Kāvyaprakāṣa, pp. 641-646,

Kāvyālaṃkāra of Rudraṭa and Sāhityadarpaṇa). The commentator however explains this term by 'painting'. Cp. 'cittakamme', Praṣna. p. 519.

18. पत्रच्छेद्यम्—Cutting leaves into various shapes. Cp. I. 82, II. 85, III. 5.

19. पुस्तकव्यापारः—Handling of books; *i.e.*, reading the 'ṣāstras'.

20. लेख्यकर्म—Painting. Cp. III. 4. The commentator explains this as 'writing'.

21. सर्वाः द्यूतकलाः—All kinds of gambling. Cp. III. 59, I. 10, 85, 86.

22. गन्धर्वशास्त्राणि—Sciences of Gandharvas; *i.e.*, singing, etc.

23. शकुनिरुतज्ञानम्—Knowledge of the cries of birds. Cp. I. 87, II. 50, 79, Dīgha. I. 9.

24. ग्रहगणितम्—Calculation of the paths, etc., of planets. Cp. I. 42, 43, 44, II. 69.

25. रत्नपरीक्षाः—Testing of precious stones. Cp. I. 38, III. 38.

26. दारुकर्म—Working in wood. Cp. III. 36. Cp. 'kaṭṭhe', Praṣna. p. 519.

27. दन्तव्यापारः—Working in ivory. Cp. 'dantakamme', Praṣna. p. 519.

28. वास्तुविद्याः—Science of houses. Cp. III. 37.

29. आयुर्वेदः—The science of Medicine.

30. यन्त्रप्रयोगः—Use of Machines. Cp. III. 50.

31. विषापहरणम्—Removing the effects of poison. Cp. I. 52.

32. सुरुङ्गोपभेदः—Tunnelling.

33. तरणम्—Swimming. Cp. II. 6.

34. लङ्घनम्—Leaping. Cp. II. 1.

35. प्लुतयः—Jumping. Cp. II. 2.

36. आरोहणम्—Ascending (of trees, etc.) Cp. VII. 50.

37. रतितन्त्राणि—Books on Erotics.

38. इन्द्रजालः—Indrajāla; production of illusions. Cp. II. 77, 78, 48, III. 20.

39. कथाः—Stories. Cp. III. 32.

40. नाटकानि—Dramas. Cp. III. 32.

41. आख्यायिकाः—Stories (as, for instance, Harshacarita.) Cp. III. 32, and 'ākhyāna', Vyut. 245-723.

42. काव्यानि—Poems. Cp. II. 30, 72, III. 56.

43. महाभारतपुराणेतिहासरामायणानि—The Mahābhārata, the Purāṇas and Itihāsas, and the Rāmāyaṇa. Cp. II. 61, 62, Vyut. 245-724, 725.

44. सर्वलिपयः—All varieties of scripts. Cp. II. 3, I. 1.

45. सर्वदेशभाषाः—The languages of all countries. Cp. III. 47.

46. सर्वसञ्ज्ञाः—All names.

47. सर्वशिल्पानि—All technical arts.

48. छन्दांसि—The metres (*i.e.*, the science of Metrics) or perhaps, the Vedas. Cp. II. 60, 63 and 67.

List V. (Pancāla's list).

This list, as such, is not found in Vātsyāyana's Kāmasūtra; but by the Sūtra and the commentary on p. 95, we can construct the list for ourselves. The commentator there says that the Kāmasūtra has 10 divisions and 64 subdivisions. The 10 divisions are—Ālinganam, Cumbanam, Dantakarma, Nakhakshatam,

Sītkṛitaṃ, Pāṇighātaḥ, Saṃveṣanaṃ, Upasṛitaṃ, Auparishṭaṃ and Narāyitaṃ. Vātsyāyana, too, says on p. 41 'There is another list of 64 given by Pancāla. We will mention them in their proper places in the Sāmprayogika Adhikaraṇa'.

Thus we can form Pancāla's list by counting the subdivisions given in Vātsyāyana's book under the above 10 headings (Kāmasūtra, pp. 96-176).

Thus Pancāla's list is as follows :—

1. स्पृष्टकम्
2. विद्धकम्
3. उद्धृष्टकम्
4. पीडितकम्
5. लतावेष्टितकम्
6. वृषाधिरूढकम्
7. तिलतण्डुलकम्
8. क्षीरनीरकम्

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9. समम्
10. तिर्यक्
11. उद्भ्रान्तम्
12. अवपीडितकम्

These are given as the opinion of 'apare', which word probably refers to the Bābhravīyas (or followers of Pancāla Bābhravya).

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13. गूढकम्
14. उच्छूनकम्
15. बिन्दुः
16. बिन्दुमाला
17. प्रवासमणिः
18. मणिमाला
19. खण्डाभ्रकम्
20. वराहचर्वितकम्

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21. आच्छुरितकम्
22. अर्धचन्द्रः
23. मण्डलम्
24. रेखा
25. व्याघ्रनखम्
26. मयूरपदकम्
27. शशप्लुतकम्
28. उत्पलपत्रकम्

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29. हिङ्कारः
30. स्तनितम्
31. कूजितम्
32. रुदितम्
33. सूत्कृतम्
34. दूत्कृतम्
35. फूत्कृतम्
36. अम्बार्थाः शब्दाः

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37. उत्फुल्लकम्
38. विजृम्भितकम्
39. इन्द्राणिकम्
40. सम्पुटकम्
41. पीडितकम्
42. वेष्टितकम्
43. वाडवकम्

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44. उपसृप्तकम्
45. मन्थनम्
46. हुलः
47. अवमर्दनम्
48. पीडितकम्
49. निर्घातः
50. वराहघातः
51. वृषाघातः
52. चटकविलसितम्
53. सम्पुटः

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54. सन्दंशः
55. भ्रमरकः
56. प्रेङ्खोलितकम्

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57. निमितम्
58. पार्श्वतोदष्टम्
59. बहिस्सन्दंशः
60. अन्तस्सन्दंशः
61. चुम्बितकम्
62. परिमृष्टकम्
63. आम्रचूषितकम्
64. सङ्गरः

Of these, 1-8, 9-12, 13-20, 21-28, 29-36, 37-43, 44-53, 54-56 and 57-64, are respectively the sub-divisions of 'ālinganaṃ', 'cumbanaṃ', 'dantakarma', 'nakhakshataṃ', 'sītkṛitaṃ', 'saṃveṣanaṃ', 'upasṛiptakaṃ', 'narāyitaṃ', and

'auparishṭakaṃ'. According to Vātsyāyana, however, we must add to the above list the following items :—

65. ऊरूपगूहनम्
66. जघनोपगूहनम्
67. स्तनालिङ्गनम्
68. ललाटिका
69. समम्
70. पीडितम्
71. अञ्चितम्
72. मृदु
73. भुग्नकम्
74. जृम्भितकम्
75. उत्पीडितकम्
76. अर्धपीडितकम्
77. वेणुदारितकम्
78. शूलाचितकम्
79. कर्कटकम्
80. पीडितकम्
81. परावृत्तकम्
82. स्थितम्
83. अवलम्बितकम्
84. धेनुकम्
85. शौनम्
86. ऐणेयम्
87. छागलम्
88. गर्दभाक्रान्तम्
89. मार्जारललितकम्
90. व्याघ्रावस्कन्दितम्
91. गजोपमर्दितम्
92. वराहघृष्टकम्
93. तुरगाधिरूढकम्
94. सङ्घाटकम्
95. गोयूथिकम्
96. वारिक्रीडितकम्
97. अपहस्तकम्
98. प्रसृतकम्
99. मुष्टिः
100. समतलकम्
101. कीला
102. कर्तरी
103. विद्धा
104. सन्दंशिका

Of these 65-68 are additional sub-divisions of 'ālinganaṃ', 69-72 of 'cumbanaṃ', 72-81 of 'saṃveṣanaṃ', 82-96 of 'upasṛitaṃ' and 97-104 of 'prahaṇanaṃ'.

All these terms are intimately connected with Erotics, and are, therefore, not translated here. They are explained in pages 97-176 of Vātsyāyana's Kāmasūtra.

LIST VI. (Yaṣodhara).

This list is given by Yaṣodhara in his commentary—Jayamangalā—on the Kāmasūtra (p. 31). Yaṣodhara mentions and gives extracts from Caraka (p. 81), Susṛuta (p. 81), Gautama (p. 142), Vasishṭha (p. 171), and Kāvyādarṣa (pp. 37, 38). In p. 147, he quotes a verse from Bhāravis' Kirātārjunīya and on p. 68, makes a reference to Bāṇa's Kādambarī. These facts seem to show that he lived in the 8th century A.D, because there are no extracts from later writers such as Rudraṭa or Māgha. This list, he says, is given in another 'ṣāstra'.

1. गीतम्—Singing. Cp. I. 5, II. 38, III. 1, IV. 13.
2. नृत्यम्—Dancing. Cp. I. 4, II. 37, III. 3, IV. 12.
3. वाद्यम्—Playing on musical instruments. Cp. I. 6, II. 37, III. 2, IV. 12.
4. लिपिज्ञानम्—Knowledge of writing, and engraving. Cp. I. 1, II. 3, IV. 44.
5. वचनं चोदारम्—Courtly speech. Cp. 'vācā porī', Burnouf, Lotus, 464, and I. 12.
6. चित्रविधिः—Composing poetry which can be formed in various figures (Cp. IV. 17) or painting.
7. पुस्तकर्म—Painting on cloth. Cp. 'potthe,' Praṣnavyākaraṇa and its commentary, p. 519. Cp. also I. 3, II. 33, III. 4, IV. 20, Mahāvastu, III. 113, 6, and Halāyudha, II. 436.
8. पत्रच्छेद्यम्—Trimming leaves into different shapes. Cp. I. 82, II. 85, III. 5, IV. 18.
9. माल्यविधिः—Art of making garlands, bouquets, etc. Cp. II. 44, III. 14.

10. आस्वाद्यविधानम्—Art of making savoury dishes; *i.e.*, art of cooking. Cp. III. 23, 24.

11. रत्नपरीक्षा—Art of testing precious stones. Cp. I. 38, III. 38, IV. 25.

12. सीव्यम्—Sewing. Cp. II. 83, III. 25 and Vyut. 245-698.

13. रङ्गपरिज्ञानम्—Knowledge of the stage, *i.e.*, art of disposing views, producing representations of natural scenery, acting, etc.

14. उपकरणक्रिया—Construction of machines, apparatus, engines, etc. (Monier-Williams.) Cp. III. 50, IV. 30.

15. मानविधिः—Measuring. Another reading is यानविधिः which means 'going, travelling.' Cp. II. 17, 18.

16. आजीवज्ञानम्—Knowledge of the means of livelihood. Cp. Daṣa. I. 42.

17. तिर्यग्योनिचिकित्सितम्—Medical treatment of animals, Veterinary Medicine.

18. मायाकृतं पाषण्डसमयज्ञानम्—Knowledge of the tenets of heretical systems, which are produced by illusion.

19. क्रीडाकौशलम्—Dexterity in plays, games, etc. Cp. III. 61, Daṣa. I. 42.

20. लोकज्ञानम्—Knowledge of the world.

21. वैचक्षण्यम्—Cleverness, skill.

22. संवाहनम्—Massage. Cp. II. 45, III. 44.

23. शरीरसंस्कारः—Refinement of the body, *i.e.*, dressing, putting on of jewels, use of ointments, etc. Cp. I. 26, III. 16.

24. विशेषकौशलम्—Special proficiency; *i.e.*, proficiency in special arts.

25. आयुःप्राप्तिः
26. अक्षविधानम्
27. रूपसङ्ख्या
28. क्रियामार्गः
29. बीजग्रहणम्
30. नयज्ञानम्
31. करणादानम्
32. चित्राचित्रविधिः
33. गूढराशिः
34. तुल्याभिहारः
35. क्षिप्रग्रहणम्
36. अनुप्राप्तिलेखास्मृतिः
37. अग्निक्रमः
38. छलव्यामोहनम्
39. ग्रहदानम्

(25–39) Varieties of gambling (with dice, cowries, etc.). Cp. I. 86, III. 59 and IV. 21.

Terms 40-44 refer to gambling with live creatures.

40. उपस्थानविधिः—How to make cocks, etc., stand.

41. युद्धम्—Making cocks, etc., fight.

42. रुतम्—The cry of cocks, etc.

43. गतम्—Making horses, etc., race.

44. नृत्तम्—Making cocks, etc., dance.

Terms 45-64 refer to Erotics.

45. पुरुषस्य भावग्रहणम्—Art of finding out the state of the affection of a man.

46, स्वरागप्रकाशनम्—Making known one's own love for another.

47. प्रत्यङ्गदानम्

48. नखदन्तयोर्विचारौ Cp. VI. 13-28.

49. नीवीस्रंसनम्

50. गुह्यस्य संस्पर्शनानुलोम्यम्

51. परमार्थकौशलम्

52. हर्षणम्

53. समानार्थताकृतार्थता

54. अनुप्रोत्साहनम्

55. मृदुक्रोधप्रवर्तनम्—Inducing a slight anger.

56. सम्यक् क्रोधनिवर्तनम्—Averting anger completely.

57. क्रुद्धप्रसादनम्—Pacifying an angry person and getting his forgiveness.

58- सुप्तापरित्यागः

59. चरमस्वापविधिः

60. गुह्यगूहनम्

61. साश्रुपातं रमणाय शापनम्—Making vows with tears (to a husband or lover).

62. स्वशपथक्रिया—Making 'ṣapatha' on one's self.

63. प्रस्थितानुगमनम्—Following a departing lover or husband.

64. पुनःपुनर्निरीक्षणम्—Seeing (a lover or husband) again and again. Terms 45-64 treat of Erotics, and therefore some are not here translated.

LIST VII. (Rāmacandra).

This list is given in Rāmacandra's commentary on the first verse in Lakshmaṇakavi's continuation of the Campūrāmāyaṇa of Vidarbharāja. This Rāmacandra is a commentator like Mallinātha and has written commentaries on several books including Bhartṛihari's 'Three Ṣatakas', the Campūrāmāyaṇa and the Campūbhārata. The last of the above books, *viz.*, the

Campūbhārata is composed by Anantakavi, who is traditionally reported to have belonged to the family of the famous Appayyadīkshita who lived in the 17th century A. D. Rāmacandra, in his commentaries, gives extracts from Candrāloka (12th century), Kāvyaphrakāṣa (12th century) and Sāhityadarpaṇa (15th century), so that he is assuredly later than Viṣwanātha, the author of Sāhityadarpaṇa, and probably, later than Appayyadīkshita also.

The list is given in the form of 9 anushṭup verses. (See Appendix A.)

1. इतिहासागमाद्याः—Itihāsas, Vedas and others. Cp. II. 62, 63, IV. 43, 48.
2. काव्यालङ्कारनाटकम्—Poems, dramas, and 'alaṃkāras' or figures of speech. Cp. II. 30, 72, III. 56, IV. 40, 42.
3. गायकत्वम्—Singing. Cp. I. 5, II. 38, III. 1, IV. 13 and 22 and VI. 1.
4. कवित्वम्—Composition of poetry. Cp. II. 31, III. 54.
5. कामशास्त्रम्—The science of Erotics. Cp. IV. 37; Daṣa. I. 41. 'adhyāpanaṃ anangavidyānāṃ sāngānāṃ'.
6. दुरोदरम्—Gambling. Cp. I. 10, 85, 86, III. 59, IV. 21, and VI. 25-45.
7. देशभाषाः—Languages of countries. Cp. III. 47, IV. 45.
8. लिपिज्ञानम्—Knowledge of different scripts. Cp. I. 1, IV. 44, VI. 4.
9. लिपिकर्म—Enamelling. (Cp. Praṣna. p. 519, 'leppa-kamme'), writing, engraving.

10. वाचकम्—Reading. Cp. III. 31.

11. सर्वाणि अपदानानि—All ancient deeds, *i.e.*, ancient chronicles.

12. स्वरशास्त्रम्—Science of 'svara' or nasal breath (Ṣabdakalpadruma); *i.e.*, the science which describes the different kinds of nasal breathing and their occult effects. See Ṣabdakalpadruma under 'svara', and also Ṣivasvarodaya; also, the Berliner Verzeichnis, II. 273.

13. शाकुनम्—Omens and portents. Cp. III. 49. See Bṛihat. chap. 86-96.

14. सामुद्रिकम्—The science of finding out a person's fortune, etc., by the lines on his hands, feet and body; chiromancy. Cp. 'angavidyā', Jāt. III. 122, 23; 158-18, etc.; 65th chap. Garuḍa Purāṇa, I.

15. रत्नशास्त्रम्—The science of precious stones; *i.e.*, a knowledge of testing precious stones, etc. Cp. I. 38, III. 38, IV. 25, VI. 11. See chapters, 68-80 of Garuḍa Purāṇa, I.

16. रथगतिकौशलम्—Proficiency in driving chariots. Cp. II. 9, IV. 8.

17. अश्वगतिकौशलम्—Proficiency in guiding horses. Cp. I. 63.

18. मल्लशास्त्रम्—The science of wrestling. Cp. 'sālambha' in II. 3.

19. सूदकर्म—The art of cooking. Cp. III. 23, 24, VI. 10.

20. भूरुहाणां दोहदम्—The art of grafting trees, making trees produce all sorts of abnormal fruits, etc. Cp. III. 41.

21. गन्धवादः—Combination, reduction to 'bhasma', purification, etc., of sulphur.

22. धातुवादः—Processes of combination, reduction to 'bhasma', decomposition, precipitation, etc., of minerals. Cp. I. 69 III. 39.

23. खन्यावादः—Location and acquirement of buried treasure. Cp. the story of the yaksha in Kathā. VI. 8, 73-74, and Indrajāla. pp. 360-364.

24. रसवादः—Combination, etc., of mercury.

25. जालवादः—Obscure.

26. अग्निसंस्तम्भः—Suspension of the properties or powers of fire; an occult art by means of which one could walk through fire, hold fire in one's hands, etc., uninjured.

27. खड्गस्तम्भः—An occult art, by means of which a man is uninjured by swords; suspension of the power to injure of swords.

28. जलस्तम्भः—Suspension of the powers or properties of water; another occult art by means of which one could walk in water for days, etc. Cp. Indrajāla. p. 305.

29. वाचस्तम्भः—An art by means of which one can suspend another's speech; *i.e.*, make another speechless.

30. वयस्तम्भः—An art by means of which age *i.e.*, the process of becoming old and decaying, is suspended. Regarding 26-30, cp. Indrajāla. pp. 39-43, 'thambhaṇiṃ' Sūtra. 2.2.27.

31. वश्यम्—An art by means of which one person can bring another completely under his influence. Cp. Indrajāla. pp. 274-295.

32. आकर्षणम्—An art by means of which one person compels another to come to him. Cp. 'āyamaṇiṃ', Sūtra. 2.2.27, Indrajāla. pp. 295-297.

33. विद्वेषणम्—An art by means of which one person is made to hate another. Cp. Indrajāla. pp. 323-325.

34. उच्चाटनम्—Driving away; *i.e.*, driving away a person from any locality such as a house or village; driving away of 'bhūtas', 'piṣācas', 'grahas', etc., from houses or persons possessed by them. Cp. Indrajāla. pp. 315-320.

35. मारणम्—Killing another by means of black arts. Cp. Indrajāla. pp. 320-323.

Kalās 31-35, as well as 'stambhanaṃ' (26-30), are technically known among their professors as 'shaṭkarma'.

36. कालवञ्चनम्—Deception of time; *i.e.*, an art by which one can prolong one's life. Cp. Indrajāla. pp. 376-379.

37. पयसि प्लवचातुर्यम्—Cleverness in diving in water.

38. पादुकासिद्धिः—An occult art, by means of which one can transport oneself instantly to any desired place. Cp. Indrajāla. pp. 371-374.

39. मृत्सिद्धिः—'Siddhi' of clay; an art by means of which a person can produce anything he likes out of clay.

40. घटिकासिद्धिः—Success or 'siddhi' in 'ghaṭikās' or pills, by means of which one can produce

all sorts of wonders. Cp. Indrajāla. pp. 2, 374, 375, and pp. 36, 84 of Vetālapancaviṃṣatikā.

41. ऐन्द्रजालिकम्—Indrajāla, production of illusion. Cp. II. 77, 78, 48, III. 20, IV. 38, and 'pāgasāsaṇiṃ', Sūtra. 2.2.27.

42. अञ्जनम्—Collyrium; *i.e.*, making all sorts of collyriums—bhūtāñjana, dravyājana, adṛiṣyāñjana, etc. Cp. Indrajāla. pp. 353-360.

43. नरदृष्टिवञ्चनम्—Deception of human sight.

44. स्वरवञ्चनम्—Deception of the voice; *i.e.*, deceiving others by disguising the voice.

45. मणिसिद्धिः—'Siddhi' or success in precious stones, by means of which one can work wonders.

46. मन्त्रसिद्धिः—Success in 'mantras'.

47. औषधसिद्धिः—'Siddhi' or success in drugs and medicines.

48. चोरकर्म—Thieving, stealing. Chap. Daṣa. 1. 11. 'couryadurodarādikapaṭakalāprauḍhatvaṃ'.

49. वृत्रक्रिया—Work in 'vṛitra', a kind of stone.

50. लोहक्रिया—Work in metals.

51. अश्मक्रिया—Work in stone.

52. मृत्क्रिया—Work in clay.

53. दारुक्रिया—Work in wood. Cp. III. 36, IV. 26.

54. वेणुक्रिया—Work in bamboos.

55. वर्मक्रिया—Armour-making.

56. अञ्जनक्रिया—Making collyrium.

57. अदृश्यकरणी—An art by which a person makes himself invisible. Cp. 'antaddhāṇiṃ', Sūtra. 2.2.27.

58. दूरकरणी—An art by means of which one can transport oneself or others to a distance.

59. मृगयारतिः—Love of hunting.

60. वाणिज्यम्—Trading.

61. पाशुपाल्यम्—Cattle-rearing.

62. कृषिः—Agriculture.

63. आहवकर्म—Science of war. Cp. III. 63, I. 74-76.

64. लावकुक्कुटमेषादियुद्धकारणकौशलम्—Proficiency in making 'lāvakas' (a kind of bird), cocks and rams fight. Cp. III. 42, VI. 41, I. 85.

A Variant of this list is given in Ṣivatatva-ratnākara. (See Appendix B). In this list the terms 3, 11, 16, 17, 20, 25, 27, 29, 30, 39, 45, 46, 47, 49, 50, 55, 56, 63 and 64 do not occur. In their stead, appear the following terms :—

न्यायशास्त्रम्—Logic. Cp. II. 80, IV. 6.

समस्तावधानम्—Attention on all; *i.e.*, giving one's attention simultaneously to many things; *e.g.*, playing cards, chess and 'ganjīph', counting the strokes of a bell, hearing English, Sanskṛit, and Latin verses and calculating the answers of 3 or 4 sums in arithmetic, at the same time.

स्वर्णपरीक्षा—Testing of gold.

तुरगलक्षणम्—Marks of horses. Cp. I. 29, II. 53.

गजशास्त्रम्—Science concerning elephants; *i.e.*, marks of elephants, their training, etc. Cp. I. 29, II. 54.

दशदोहलविद्याः—The ten processes concerning plants.

असिस्तम्भः—Suspending the power to injure of swords. Cp. VII. 27.

वायुस्तम्भः—Suspension of the properties or powers of Air.

मोहनम्—The art of fascinating others, so as to make them devoid of discrimination. Cp. Sūtra. 2.2.27. 'mohaṇakaraṃ'.

वाक्सिद्धिः—'Siddhi' or success in speech, an art by the acquirement of which all that a person speaks will come to pass.

मन्त्रौषधिसिद्धिः—'Siddhi' or success in precious stones and drugs. Cp. VII. 46, 47.

चित्ररोहक्रिया—Work in 'citraroha' (?).

चर्मक्रिया—Work in leather.

अम्बरक्रिया—Cloth-making.

आसवकर्म—Preparation of 'āsavas'—a kind of drink. Cp. III. 24.

महेन्द्रजालः—'Mahendrajāla'; wonderworking.

रतिकौशलम्—Cleverness in 'rati'.

लावुकायोधनप्रौढिः—Cleverness in making 'lāvakas' fight. Cp. VII. 64, III. 42.

मेषयुद्धादिकौशलम्—Cleverness in making rams, etc., fight. Cp. VII. 64, III. 42, VI. 41, I. 85.

It is to be remarked that a large number of the Kalās in this list are concerned with occult arts and alchemy—namely nos. 12, 13, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 57 and 58.

LIST VIII. (Ṣukranītisāra).

This list is given in p. 126 of Ṣukranītisāra. (See Appendix C).

1. हावभावादिसंयुक्तं नर्तनम्—Dancing accompanied with appropriate action of the features of the face, arms, etc. Cp. I. 4, II. 37, III. 3, IV. 12, VI. 2.
2. अनेकवाद्यविकृतौ तद्वादनेज्ञानम्—Proficiency in playing many musical instruments together; *i.e.*, in playing in an orchestra. Cp. I. 6, II. 37, III. 2, IV. 11, VI. 3.
3. स्त्रीपुंसोः वस्त्रालङ्कारसन्धानम्—Performing the toilette of men and women; *i.e.*, assisting men and women in putting on their dress, jewels, etc. Cp. I. 25, 26, III. 16, VI. 23.
4. अनेकरूपाविर्भावकृतिज्ञानम्—Making forms come out; *i.e.*, creating different forms in stone, wood, etc. Cp. I. 3, II. 32, 33.
5. शय्यास्तरणसंयोगपुष्पादिग्रथनम्—Making beds and garlands with flowers. Cp. I. 18, II. 44, III. 14, VI. 9, III. 10.
6. द्यूताद्यनेकक्रीडाभी रञ्जनम्—Entertaining oneself with gambling and other pastimes. Cp. I. 10, III. 59, VI. 25-45, VII. 6.
7. अनेकासनसन्धानै रते र्ज्ञानम्—Knowledge of 'rati' in different postures. IV. 37, V. 82-96, VII. 5.
8. मकरन्दासवादीनां मद्यादीनां कृतिः—Preparation of 'makarandāsava' (flower-juice) and other intoxicating liquors. Cp. III. 24.
9. शल्यगूढाहृतौ सिराव्रणव्यधे ज्ञानम्—Knowledge of extracting buried arrows, spears, etc., and of cutting open wounds and blood-vessels.

10. हीनादिरससंयोगान्नादिसम्पाचनम्—Cooking of various dishes with the various 'rasas' combined in different proportions. Cp. III. 23, VII. 19, VI. 10.

11. वृक्षादिप्रसवारोपपालनादिकृतिः—Grafting and care of plants. Cp. III. 41, VII. 20.

12. पाषाणधात्वादिद्दतिभस्मकरणम्—Melting and reduction to 'bhasma' of stones, minerals, etc. Cp. I. 69, III. 39, VII. 22.

13. यावदिक्षुविकाराणां कृतिज्ञानम्—Knowledge of the preparation of all things that can be prepared from the juice of sugarcane.

14. धात्वौषधीनां संयोगक्रियाज्ञानम्—Knowledge of the combinations of minerals and herbs.

15. धातुसाङ्कर्यपार्थक्यकरणम्—Combination and isolation of minerals.

16. धात्वादीनां संयोगापूर्वविज्ञानम्—Knowledge of making new combinations of minerals, etc.

17. क्षारनिष्कासनज्ञानम्—Knowledge of ejecting the 'kshāra-rasa' (one of the 6 'rasas') out of minerals, etc.

18. पदादिन्यासतः शस्त्रसन्धाननिक्षेपः—Making the bow ready, by placing the foot upon the bow, etc., and shooting with it.

19. सन्ध्याघाताकृष्टिभेदैः मल्लयुद्धम्—Wrestling in different ways, using different falls and grips. Cp. II. 3, VII. 18, I. 70, 72.

20. अभिलक्षिते देशे यन्त्राद्यस्त्रनिपातनम्—Shooting arrows, etc., from 'yantras' so as to hit any desired place.

21. वाद्यसङ्केततो व्यूहरचनादि—Arranging an army into 'vyūhas', making it into squares, etc., to the play of musical instruments. Cp. I. 53.

22. गजाश्वरथगत्या तु युद्धसंयोजनम्—Joining in a battle on an elephant, on horseback or on a chariot.

23. विविधासनमुद्राभिः देवतातोषणम्—Pleasing the deities by various postures, and 'mudrās'. Cp. II. 3.

24. सारथ्यम्—Charioteering. Cp. IV. 8.

25. गजाश्वादेः गतिशिक्षा—Training of elephants and horses. Cp. I. 63, 64, IV. 14.

26. मृत्तिकाकाष्ठपाषाणधातुभाण्डादिसत्क्रिया—Making of pots, etc., in clay, wood, stone and minerals. Cp. VII. 51, 52.

27. चित्राद्यालेखनम्—Painting of pictures. Cp. VI. 6, IV. 17, III. 4.

28. तटाकवापीप्रासादसमभूमिक्रिया—Digging tanks and wells, and making the ground even.

29. घट्याद्यनेकयन्त्राणां वाद्यानां कृतिः—Construction of machines like the water-wheel, and of musical instruments. Cp. VI. 14, IV. 30, III. 50.

30. हीनमध्यादिसंयोगवर्णाद्यै रञ्जनम्—Painting with colours mixed in different proportions.

31. जलवाय्वग्निसंयोगनिरोधैः क्रिया—Working with water, fire and air, conjointly, and with water, fire and air which are confined.

32. नौकारथादियानानां कृतिज्ञानम्—Knowledge of how to construct ships, chariots and other means of locomotion. Cp. VI. 15, III. 50.

33. सूत्रादिरज्जुकरणविज्ञानम्—Knowledge of how to make yarn, ropes, etc.

34. अनेकतन्तुसंयोगैः पटबन्धः—Weaving of cloth from yarn. Cp. III. 34.

35. रत्नानां वेधादिसदसज्ज्ञानम्—Knowledge of how to test precious stones, and of cutting, boring, etc.,

of precious stones. Cp. I. 38, III. 38, IV. 25, VI. 11, VII. 15.

36. स्वर्णादीनांन्तु याथार्थ्यविज्ञानम्—Knowledge of testing gold, etc.

37. कृत्रिमस्वर्णरत्नादिक्रियाज्ञानम्—Knowledge of how to manufacture artificial gold, and artificial precious stones.

38. स्वर्णाद्यलङ्कारकृतिः—Construction of ornaments from gold, etc. Cp. I. 83, III. 17, 19.

39. लेपादिसत्कृतिः—Enamelling, polishing, varnishing, etc. Cp. 'leppakamme', Praṣna. p. 519.

40. चर्मणां मार्दवादिक्रियाज्ञानम्—Knowledge of tanning leather, etc.

41. पशुचर्माङ्गनिर्हारज्ञानम्—Knowledge of how to remove the hide and the various members from the bodies of animals.

42. दुग्धदोहादिघृतान्तं विज्ञानम्—Knowledge of the processes of milking and of making ghee from milk.

43. कञ्चुकादीनां सीवने विज्ञानम्—Knowledge of how to sew bodices, etc. Cp. VI. 12, III. 25, II. 83.

44. जलेबाह्वादिभि स्तरणम्—Swimming in water with hands, etc. Cp. IV. 33, II. 6, VII. 37.

45. गृहभाण्डादे र्मार्जने विज्ञानम्—Cleverness in cleaning houses, household utensils, etc.

46. वस्त्रसंमार्जनम्—Cleaning cloths.

47. क्षुरकर्म—Shaving.

48. तिलमांसादिस्नेहानां निष्कासने कृतिः—Extracting the essence from seasmum, meat, etc.

49. सीराद्याकर्षणेज्ञानम्—Knowledge of ploughing, hoeing, etc.

50. वृक्षाद्यारोहणेज्ञानम्—Knowledge of climbing trees, etc. Cp. IV. 36.

51. मनोनुकूलसेवायाः कृतिज्ञानम्—Knowledge of how to please another by service.

52. वेणुतृणादिपात्राणां कृतिज्ञानम्—Knowledge of how to make vessels out of bamboo, reeds, etc. Cp. VII. 54.

53. काचपात्रादिकरणविज्ञानम्—Knowledge of how to make vessels, etc., of glass.

54. जलानां संसेचनं संहरणम्—Bringing and sprinkling of water.

55. लोहाभिसारशस्त्रास्त्रकृतिज्ञानम्—Knowledge of how to make weapons out of metals. Cp. IV. 50.

56. गजाश्ववृषभोष्ट्राणां पल्याणादिक्रिया—Making saddles, etc., for riding elephants, horses, bulls and camels.

57. शिशोस्संरक्षणे धारणे क्रीडनेज्ञानम्—Knowledge of how to bring up, carry, and play with, children. Cp. III. 61.

58. अपराधिजनेसुयुक्तताडनज्ञानम्—Knowledge of how to beat offenders well.

59. नानादेशीयवर्णानां सुसम्यग्लेखनेज्ञानम्—Knowledge of writing well the alphabets of the various countries. Cp. I. 1, IV. 44, VI. 4, VII. 8, 9.

60. ताम्बूलरक्षादिकृतिविज्ञानम्—Knowledge of how to prepare 'tāmbūla', etc. (*i.e.*, betel leaves, areca nuts, slaked lime, etc.).

61. आदानम्—Taking or comprehension (of the Kalās).

62. आशुकारित्वम्—Quick work.

63. प्रतिदानम्—Giving again or teaching, of the Kalās.

64. चिरक्रिया—Working slowly.

List IX. (Kalpāntarvācyāni).

This list is given by the author of the Kalpāntarvācyāni, a commentary on the Kalpasūtra, as an alternative explanation of the term 'bāvattariṃ kalāo'. (See Appendix D).

1. लिखितम्—Writing. Cp. I. 1, IV. 44, VI. 4, VII. 8, VIII. 59.
2. पठितम्—Reading. Cp. III. 31, VI. 10.
3. सङ्ख्या—Numbers, *i.e.*, arithmetic. Cp. II. 3, I. 2.
4. गीतम्—Singing. Cp. I. 5, II. 38, III. 1, IV. 13, 22, VI. 1, VII. 3.
5. नृत्यम्—Dancing. Cp. I. 4, II. 37, III. 3, IV. 12, VI. 2, VIII. 1.
6. तालः—A musical instrument, to beat time with. Cp. IV. 11.
7. पटहः—A kind of drum.
8. मुरजः—Another kind of drum. Cp. IV. 12.
9. वीणा—The 'Vīṇā'. Cp. IV. 12, II. 36.
10. वंशः—The flute.
11. भेरीपरीक्षा—Testing a 'bherī' (a kind of drum).

As regards 6-11, compare I. 6, II. 37, III. 2, IV. 11, VI. 3, VIII. 2.

12. द्विरदशिक्षा—Training of elephants. Cp. I. 64, IV. 14, VIII. 25.
13. तुरगशिक्षा—Training of horses. Cp. I. 63, VIII. 25.
14. धातुवादः—Combination, reduction to 'bhasma', etc., of minerals. Cp. I. 69, III. 39, VII. 22, VIII. 12-17.
15. दृग्वादः—Obscure.
16. मन्त्रवादः—Magic and sorcery.
17. वलिविनाशः—Destruction of wrinkles.
18. पलितविनाशः—Destruction of grey hair.
19. रत्नलक्ष्म—Marks of jewels. Cp. I. 38, III. 48, IV. 25, VI. 11, VII. 15, VIII. 35.
20. नारीलक्ष्म—Marks of women. Cp. I. 27, II. 51.

21. नृलक्ष्म—Marks of men. Cp. I. 28, II. 52.

22. छन्दः—Metrics (or the Vedas). Cp. II. 67, IV. 48.

23. तर्कः—Logic. Cp. II. 80, IV. 2.

24. सुनीतिः—Science of Morals, Politics, and Economics. Cp. II. 75, IV. 5.

25. तत्वम्—Philosophy.

26. कविता—Composing poetry. Cp. II. 31, III. 54, VII. 4.

27. ज्योतिः—Science of the Stars and Planets. Cp. II. 69, IV. 24, and I. 41-44.

28. श्रुतिः—The Vedas. Cp. II. 61, 63.

29. वैद्यकम्—Medical Science. Cp. IV. 29.

30. भाषाः—Languages. Cp. IV. 45, III. 47, VII. 7.

31. योगः—The 'Yoga' philosophy. Cp. II. 71.

32. रसायनम्—Preparation of 'rasāyanas'.

33. अञ्जनम्—Collyrium, *i.e.*, preparation of collyriums. Cp. VII. 42, 56.

34. लिपिः—Writing, engraving. Cp. VII. 9, IV. 44, etc.

35. स्वप्नः—Dreams. Cp. II. 49.

36. इन्द्रजालम्—'Indrajāla'; wonderworking. Cp. II. 77, 78, 48, III. 20, IV. 38, VII. 41.

37. कृषिः—Agriculture. Cp. VII. 62.

38. वाणिज्यम्—Commerce. Cp. VII. 60.

39. नृपसेवनम्—Service of the King.

40. शाकुनम्—Augury, omens and portents. Cp. III. 49, VII. 13.

41. वायुसंसूचनम्—Indication of the wind.

42. अग्निसंसूचनम्—Indication of fire.

43. दृष्टिः—Seeing.

44. लेपनम्—Enamelling, varnishing, polishing, etc. Cp. VIII. 39.

45. मर्दनम्—Beating.

46. ऊर्ध्वगतिः—Going upwards.

47. घटबन्धः—Binding pots.

48. घटभ्रमः—Turning pots.

Terms 46, 47, probably refer to the Water-wheel—a wheel, to which pots are attached at small intervals and which is used to raise water from wells.

49. पत्रच्छेदनम्—Cutting of leaves into various shapes. Cp. I. 82, II. 85, III. 5, IV. 18, VI. 8.

50. मर्मभेदनम्—Hitting the vital parts (with arrows, spears, etc.). Cp. II. 26.

51. फलाकृष्टिः—Attracting fruits.

52. अम्बुज्ञता—Divination of water. See chap. 54, Bṛihat.

53. वृष्टिज्ञता—Knowledge of when it will rain. See chap. 28, Bṛihat.

54. लोकाचारः—Customs of the world. Cp. VI. 20.

55. जनानुवृत्तिः—Following the people. Cp. VIII. 51.

56. फलभृत्—Probably for 'phalaka' (and 'bandhanaṃ'). Binding and carrying the shield.

57. खड्गबन्धनम्—Binding a sword.

58. क्षुरीबन्धनम्—Binding a dagger.

59. मुद्रा—The 'mudrās'. Cp. II. 3, VIII. 23.

60. अयःकृतिः—Working in iron. Cp. VII. 50.

61. रदकृतिः—Working in ivory. Cp. IV. 27.

62. काष्ठकृतिः—Working in wood. Cp. VIII. 26, IV. 26, III. 36.

63. चित्रकृतिः—Making of pictures; painting. Cp. VIII. 27, VI. 6, IV. 17, III. 4.
64. दोर्युद्धम्—Fighting with the arms. Cp. I. 70.
65. दृग्युद्धम्—Fighting with eyes (!).
66. मुष्टियुद्धम्—Fighting with fists. Cp. I. 72.
67. दण्डयुद्धम्—Fighting with sticks. Cp. I. 71.
68. असियुद्धम्—Fighting with swords. Cp. I. 73.
69. वाग्युद्धम्—Fighting with words.
70. गारुडदमनम्—Subduing a 'garuḍa' or Brahmini kite.
71. सर्पदमनम्—Subduing a serpent.
72. भूतदमनम्—Subduing of demons.

LIST X.

A different list which however corresponds with the above lists in certain points is given in Aṣvaghosha's Sūtrālaṃkāra, chapter IX, tale 61. I quote it according to Huber's translation from the Chinese (p. 311), the Sanskṛit Text being lost. Compare also Sylvain Lévi in Journal Asiatique, July—August, 1908, p. 89.

1. The Veda. Cp. II. 63.
2. The art of shooting. Cp. I. 61, II. 7, 10, etc.
3. Medicine. Cp. IX. 29, IV. 29.
4. Sacrifices. Cp. II. 68.
5. Astronomy. Cp. IX. 27, IV. 24, II. 69, and I. 41-44.
6. Grammar. Cp. II. 64, IV. 1.
7. The origin of scriptures.
8. Books about the arrangement of sacrifices.
9. Books about eloquence.
10. The art of Love. Cp. IV. 37, VII. 5.

11. Books about the acquisition of fortune.
12. Books about pure families.
13. Books about all objects.
14. Books about the Ten Names.
15. Books about numbers and mathematics.
16. Books about playing chess.
17. Books about playing dice. Cp. III. 60.
18. Books about the study of the Origin.
19. Books about music and singing.
20. Books about playing the lute.
21. Books about dancing and laughing. Cp. IV. 12.
22. Jugglery.
23. Education. Cp. III. 61.
24. The arrangement of flowers. Cp. II. 44, III. 14, VI. 9, VIII. 5.
25. Shampooing. Cp. III. 44, II. 45.
26. Books about precious stones. Cp. I. 38, III. 38, IV. 25, etc.
27. Books about precious clothes.
28. Books about silk weaving.
29. Books about wax work. Cp. I. 24, II. 82.
30. Stratagems.
31. Serving. Cp. IX. 39, VIII. 51.
32. Sculpture. Cp. I. 3, II. 32, 33.
33. The art of painting. Cp. VI. 6, IV. 17, III. 4.
34. Literature. Cp. IV. 39-43, III. 55, 56, II. 61, 62.
35. Combinations of perfumes. Cp. I. 23, II. 86.
36. Arrangement of garlands. Cp. II. 44, III. 14.

37. The explanation of dreams. Cp. II. 49, IX. 35.
38. Interpretation of the flight of birds. Cp. III. 49, VII. 13.
39. The horoscope of boys and girls.
40. The training of elephants. Cp. I. 64, IV. 14, VIII. 25, IX. 12.
41. The art of beating the drum. Cp. I. 8, III. 27, etc.
42. The rules of battles.
43. The training of horses. Cp. I. 63, VIII. 25, IX. 13.
44. The management of the lance.
45. Jumping. Cp. II. 1, IV. 34.
46. Running. Cp. II. 4.
47. Fording a river. Cp. II. 6.

THE ORIGIN OF THE KALĀS.

There seems to be no reasonable doubt that the Kalās came into being as the Indians became civilised, and that therefore some of the Kalās included in any one list (*e.g.*, dancing and singing) are long posterior to others in the same list. The Kālikā Purāṇa (Chap. 2), however, narrates the following curious account of how the 64 Kalās came into being. Brahmā (the Creator) first created the Prajāpatis and the mindborn Ṛishis; he then created Sandhyā and then Manmatha, the God of Love. On him, Brahmā conferred a boon that no being in the universe—himself, Vishṇu and Ṣiva included—could withstand the might of

his arrows; he therefore asked Manmatha to help him in the work of creation, by making men and women fall in love. The Prajāpatis and Ṛishis gave him the name of Manmatha and promised that he would get Daksha's daughter in marriage. Thereupon the mischievous Manmatha wanted to prove the truth of Brahmā's boon and seeing that Sandhyā was present, directed his arrows impartially at Brahmā, the Prajāpatis and Ṛishis and Sandhyā, so that they felt an irrepressible love for Sandhyā, who on her part, felt in the same way. As Brahmā and Sandhyā were thus experiencing the feelings of love, there were born the 49 'bhāvas' of Brahmā, and the 'hāvas', ('bibboka', etc.) and the 64 Kalās of Sandhyā.

उदीरितेन्द्रियोधाता वीक्षाञ्चक्रे यदाथ ताम् ।
तदैव ह्यूनपञ्चाशद्भावा जाताः शरीरतः ॥
विब्बोकाद्या स्तथाहावा श्चतुष्षष्टिकला स्तथा ।
कन्दर्पशरविद्धायाः सन्ध्याया अभवन्द्विजाः ॥

Kālikā Purāṇa, II. 28, 29.

Such is the account given by the Kālikā Purāṇa. The other (and, undoubtedly) earlier Purāṇas like the Vishṇu Purāṇa, Vāyu Purāṇa, etc., fail to give an account of the origin of the Kalās even when describing the origin of the Vedas, Upavedas, Purāṇas, etc. This omission seems to show that no such account was in existence at the time of their composition.

The Kalās, being intended for the service of man in this world, naturally form part of the Lower Science or 'aparā vidyā' of the Muṇḍaka Upanishad.* It is therefore interesting to see that one 'ṣloka', while admitting that 63 of them form part of the Lower Science, says that the 64th Kalā† is Brahmavidyā.

‡ क्षुद्रास्त्रिषष्टिविद्यास्स्यु स्तत्फलं नश्वरं भवेत् ।
चतुष्षष्टितमी ब्रह्मविद्या त्वमृतदायिनी ॥

(Source unknown).

MANLY AND WOMANLY KALĀS.

The Kalās are divided into 2 classes—'strīkalāḥ' and 'purushakalāḥ' by the commentators according as they are appropriate for women or for men. Thus the Kalās in List I are for men as is observed by the author of the Kalpāntarvācyāni (अत्र नन्दिसूत्रोक्ताः ७२ पुरुषकला इमाः लेहं गणियम् etc. Berliner Verzeichnis, II. p. 662). Abhayadeva, too, remarks in p. 55, Vipākasūtra:—लेखाद्याः शकुनरुतपर्यन्ता गणितप्रधानाः कलाः प्रायः पुरुषाणामेवाभ्यासयोग्याः । गीतनृत्यादीनि विशेषतः पण्यस्त्रीजनोचितानि चतुष्षष्टिर्विज्ञानानि ते गणिकागुणाः । अथवा वात्स्यायनोक्तान्यालिङ्गनादीन्यष्टौ वस्तूनि । तानि च प्रत्येकमष्टभेदत्वाच्चतुष्षष्टिर्भवन्ति ॥

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* It is significant that the Kalās are not mentioned as forming part of the Lower Science in the Muṇḍaka Upanishad, and the Chāndogya Up. Chap. 7.

† A comparison of App. A with App. B shows that the 2 terms—'catnshshṭikalāḥ' and 'catushashṭividyāḥ' are synonymous.

‡ This 'ṣloka' refers to an entirely different list of Kalās, which, I have so far not succeeded in finding.

Thus in the opinion of Abhayadeva, the Kalās in List I are intended for men, and those in Lists III and V are intended for women and especially, for courtesans.

This, however, does not mean that the Kalās in list I were learnt exclusively by men, for we find in the Vipākasūtra that a certain courtesan named Kāmajjhayā was learned in the 72 Kalās and also possessed the 64 courtesan's accomplishments. (कामज्झया णामं गणिया होत्था . . . . बावत्तरीकलापण्डिता चऊसट्ठिगणिआगुणोववेता. Vipākasūtra, p. 55) Adopting this classification, we find that the Kalās in Lists I, II, IV, VII, VIII, IX and X are for men and the Kalās in Lists III, V and VI for women.

The 64 Women's (or Courtesan's) accomplishments—'caūsaṭṭhimahilāguṇe' have a close relation with the 64 Kalās. In the opinion of Abhayadeva, the 64 'mahilāguṇe' are no other than the Kalās in List III or List V. The author of the Kalpāntarvācyāni, however, gives a list of 64 'guṇas', which in no way differs from a list of Kalās. (See Appendix E.)

THE 64 'TANTRAS'.

In many books on 'tantra' (*e.g.*, the Vāmakeṣvaratantra), we find a list of 64 'tantras' given. These 'tantras', though entirely unconnected with the Kalās (See Appendix F.) are used for practically the same purposes for which Kalās are used. Thus, for instance,

the 'Mahāmāyāṣambaratantra' is used to produce illusions (Cp. II. 77, 78, 48, etc.). The 'Kalāvāda' deals with Erotics, the 'Kuṇḍikāmata' with the means for acquiring 'ghaṭikāsiddhi' (VII. 40) and the 'Trotala' with the means for the acquisition of the 'siddhis' of 'ghaṭikās', 'anjanas' and 'pādukās' (VII. 40, 42, 38).

Thus the 64 'tantras' are substantially nothing but the 64 Kalās or the means for the acquisition of the Kaḷās; but the origin of the 'tantras' is quite different. The 'tantras' are all said to have been originally taught by Ṣankara to Pārvatī; while we find no such thing said of the Kalās, which came into being as the people became civilised, and were then made up into lists. (See also p. 63 *supra.*)

It is said that there are also 64 subsidiary 'tantras'.

DATE OF THE LISTS.

Weber, in Indische Studien **16**, 283, infers from the words 'itthīlakkhaṇaṃ', 'purisalakkhaṇaṃ', etc., that the Jain lists were composed about the same time as the Mahābhāshya, which on Pāṇini, 4-2-60 gives 'gaulakshaṇikāḥ', 'āsvalakshaṇikāḥ' as examples. The mere occurrence of the words 'itthīlakkhaṇaṃ' etc., is not enough to warrant the above conclusion. Moreover, the date of the Mahābhāshya itself is not definitely settled; Bhāṇḍārkar assigns it to 142 B.C; Weber[1] to after the birth of

[1] Lectures on Indian Literature.

Christ and Paṇḍits Satyavrata Ṣyāmāṣrami[1] and Bhāshyācārya[2] to before the birth of Buddha.

On historical, metrical and other grounds, Prof. Jacobi has concluded that the Sūtras composing the Jaina Siddhānta were composed after the Pāli Tripiṭaka and before Lalitavistara. He accordingly assigns the composition of the Jaina Sūtras to the period 320-300 B.C.[3]

The date of the Lalitavistara cannot be exactly determined. A Chinese translation of it, made in 76 A.D. is unfortunately lost. Dr. Rājendralāla Mitra's opinion that the book was written between 400 and 350[4] B.C. does not rest on secure grounds. Under the circumstances, therefore, the 1st century B.C. is a safer date as it is neither too early nor too late.

Vātsyāyana's Kāmasūtra is mentioned by Bhavabhūti and Subandhu in his Vāsavadattā. This shows that Vātsyāyana's book is earlier than 600 A.D. If, however. Vātsyāyana is earlier than Kālidāsa, as Dr. Peterson[5] suggests, this would place the Kāmasūtra earlier than the 4th century A.D. or (according to Kale, Vaidya, etc., who place Kālidāsa

[1] Appendix to the Nirukta (Bibliotheca Indica Series).

[2] Pamphlet on the Age of Patanjali.

[3] See Jacobi's Introdn. to xxii, S.B.E. Series.

[4] Introduction to the Lalitavistara.

[5] See the extract from Peterson's essay, printed in the Kāmasūtra.

himself in the 1st century B.C.) the 1st century B.C.

List V—Pancāla's list—is mentioned by Vātsyāyana himself and is therefore earlier than the Kāmasūtra. We have also seen that in the opinion of Abhayadeva and Yaṣodhara, this list is older than the Jaina Sūtras, and that it was composed at a time when the division of the Ṛik Saṃhitā into 64 'adhyāyas' was still felt as recent. The references to the Kalās in the Rāmāyaṇa, Mahābhāshya and Lalitavistara (p. 417) were most probably made to this list.

List IV occurs in Kādambarī, which was written by Bāṇa who lived in the court of Harshavardhana Ṣilāditya (606—648 A.D.).

Of Lists VI and IX we cannot find out the approximate date with any certainty, as we do not know in what books these lists originally occur. There now remain but 2 lists —Lists VII and VIII. These are given in Ṣivatatvaratnākara and Ṣukranītisāra respectively, two books whose dates are not exactly known. Most probably, both are earlier than the 7th century A.D.

Thus, then, List V—Pancāla's list—is the oldest of all the lists given here. Next come in order the lists from the Jaina Sūtras, Lalitavistara and the Kāmasūtra. Of the remaining four lists, most probably, List VI is later than Lists VII and VIII and list IX later than all three.

THE LITERATURE OF THE KALĀS.

Some of the Kalās, such as 'koṣa', 'alaṃkāra', 'ṣikshā', 'chandaḥ', etc., are dealt with in the Agnipurāṇa (See chapters 328—347). The Garuḍapurāṇa too, has some chapters on 'sāmudrikaṃ', 'ratnaparīkshā' and on the marks of men, women, horses, etc. (See Agnipurāṇa, chap. 243—246, Garuḍapurāṇa, I, chapters 63—80). These latter, as well as 'vāstuvidyā', 'vṛikshāyurveda', 'gandhayukti', etc., are dealt with in the Bṛihat Saṃhitā (see chapters 50—96). The books on 'Tantra', 'Mantrasāstra', and 'Indrajāla' devote themselves to the explanation of the occult arts like 'indrajāla', 'maṇisiddhi', etc. The chemical arts like 'rasavāda' and 'dhātuvāda' are to some extent dealt with in medical books like Rasaratnākara, etc. On dancing and music there are many books like Sangītaratnākara extant.

The culinary arts, 'annavidhi', 'pānavidhi', etc., are also dealt with in books on Vaidyaka or medicine. Of the books on 'Jyotiḥ', 'Sāṃkhyaṃ', 'Vyākaraṇaṃ', etc., there is no necessity to speak about, each of them—having, as is well known, a large literature of its own. The erotic arts, too, are treated of in many books like the Kāmasūtra, Kandarpacūḍāmaṇi, etc.

On the remaining Kalās, like 'dyūtaṃ,' 'mālyagrathanaṃ', 'corakarma', etc., there are no books now extant; many books on these subjects seem to have been current but these

are all now lost and a stray extract or two in some commentary, and sometimes, a bald mention of a string of writers, are now the only remnants of this great literature*.

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* Recently, however, there has come into existence a monthly magazine in Madras (The Bhautikakalānidhi, edited by Messrs. B. Sūryanārāyaṇa Rao, and Paṇḍit Subbarāya Ṣāstry) with the object of giving out to the world the contents of many books on Kalās written by ancient Ṛishis. The editors announce that they will give the contents of the following books, among others:—

Anukaraṇaṣabdaṣāstra of Kāndīka Ṛishi.
Strīlakshaṇaṣāstra of Ṣākatāyana Ṛishi.
Purushalakshaṇaṣāstra of Babhru Ṛishi.
Kanyālakshaṇaṣāstra of the same Ṛishi.
Ṣakuniṣāstra of Gārgi Maharshi.
Ṣilpaṣāstra of Maya.
Sūpaṣāstra of Sukeṣa.
Mālinīṣāstra of Ṛiṣyaṣṛinga.
Pralayaṣāstra of Vyāsa.
Kālaṣāstra of Shaṇmukha.
Māyāvādaṣāstra of Ānjaneya.
Dhātuvāda and Vishavāda } of the Aṣvins.
Gāruḍaṣāstra of Vāla.
Citrakarma of Bhīma.
Mallaṣāstra of Malla.
Bharataṣāstra of Gaṇapati.
Parakāyapraveṣaṣāstra of Vālakhilya.
Aṣvahṛidaya of Sugrīva.
Gajahṛidaya of Kumāraswāmy.
Ratnaparīkshā of Vātsyāyana.
Indrajāla and Mahendrajāla } of Vīrabāhu.
Arthaṣāstra of Vyāṣa.
Ṣaktitantra of Agastya.
Saudāminīkalāṣāstra of Matanga.
Ṣuddhavidyākalpa of Āṣvalāyana.
Brahmāṇḍasāra of Vyāsa..

APPENDIX A

इतिहासागमाद्याश्च काव्यालङ्कारनाटकम् ।
गायकत्वङ्कवित्वञ्च कामशास्त्रन्दुरोदरम् ॥

देशभाषालिपिज्ञानं लिपिकर्म च वाचकम् ।
सर्वाणिचापदानानि स्वरशास्त्रन्तु शाकुनम् ॥

सामुद्रिकं रत्नशास्त्रं रथाश्वगतिकौशलम् ।
मल्लशास्त्रं सूदकर्म भूरुहाणाञ्चदोहदम् ॥

गन्धवादो धातुवादः खन्यावादो रसस्यच ।
जालवादो ग्निसंस्तम्भः खड्गस्तम्भो जलस्यच ॥

वाचस्तम्भो वयस्तम्भो वश्याकर्षणमेवच ।
विद्वेषणोच्चाटनञ्च मारणङ्कालवञ्चनम् ॥

पयसिप्लवचातुर्यं पादुकासिद्धिरेवच ।
मृत्सिद्धिर्घटिकासिद्धि रैन्द्रजालिकमेवच ॥

अञ्जनं नरदृष्टेस्तु वञ्चनं स्वरवञ्चनम् ।
मणिमन्त्रौषधानाञ्च सिद्धयश्चोरकर्मच ॥

वृत्रलोहाश्ममृद्दारु वेणुवर्माञ्जनक्रियाः ।
अदृश्यकरणी दूरकरणी मृगयारतिः ॥

वाणिज्यं पाशुपाल्यञ्च कृषिराहवकर्मच ।
लावकुक्कुटमेषादि युद्धकारणकौशलम् ॥

Aṃṣubodhinī of Bharadvāja.
Ākāṣatantra of the same
Meghotpattiprakaraṇa of Āngīrasa, etc.

Extracts from some of the above named books are given in the magazine. These extracts are in the form of 'sūtras' and are followed by the commentary (vritti) in verse of Bodhānanda. It is much to be regretted that the publication of this huge —and hitherto unknown—mass of literature on the Kalās is being performed with so much perfunctoriness.

चतुष्षष्टिः कलाश्चैताः कलाविद्भिः प्रकीर्तिताः।

Campūrāmāyaṇa. p. 311.

APPENDIX B

वेदास्सर्वे सवेदाङ्गा इतिहासस्तथागमः[1]।
न्यायशास्त्र[2]न्तथाकाव्यमलङ्कारश्चनाटकम्[3]॥

कवित्वङ्कामशास्त्रञ्च द्यूतनैपुण्यमित्यपि।
देशभाषापरिज्ञानं लिपिज्ञानं लिपिक्रिया॥

तथासमस्तावधानं स्वरशास्त्रं च वाचकम्।
सामुद्रिकञ्च शकुनं परीक्षारत्नसन्ततेः॥

तथा स्वर्णपरीक्षाच तथा तुरगलक्षणम्।
गजशास्त्रं मल्लविद्या पाककर्म ततःपरम्॥

दशदोहलविद्याश्च वादोगन्धकसम्भवः।
धातुवादः खनीवादो रसवादस्ततःपरः॥

अग्निस्तम्भो जलस्तम्भो प्यसिस्तम्भनमेवच।
वायुस्तम्भस्तथा वश्यं मोहनाकर्षणे तथा॥

उच्चाटनञ्च विद्वेषो मारण ङ्कालवञ्चनम्।
वाणिज्य म्पाशुपाल्यञ्च कृषि रासवकर्मच॥

लावुकायोधनप्रौढि र्मेषयुद्धेषु कौशलम्।
रतिकौशलमाखेटो प्यदृश्यकरणीतथा॥

चित्ररोहाश्ममृद्दारुवेणुचर्माम्बरक्रियाः।
तथैवदूरकरणी* चोरकर्माञ्जनन्तथा॥

मन्त्रौषध्योस्तथासिद्धि स्स्वरदृष्टयोस्तुवञ्चने।
जलप्लवनवाक्सिद्धि र्घटिकासिद्धयस्तथा॥

तथैवपादुकासिद्धि रिन्द्रजालन्ततःपरम्।
विद्या मेहन्द्रजालेन चतुष्षष्टि र्मता इमाः॥

Ṣrītatvanidhi, p. 102.

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* Incorrectly printed as द्यूतकरणी.

APPENDIX C

कलानां नपृथङ्नाम लक्ष्मचास्तीहकेवलम् ।
पृथक्पृथक्क्रियाभिर्हि कलाभेदस्तुजायते ॥

यांयाङ्कलां समाश्रित्य तन्नाम्ना जातिरुच्यते ।
हावभावादिसंयुक्तनर्तनं तु कला स्मृता ॥

अनेकवाद्यविकृतौ ज्ञानं तद्वादनेकला ।
वस्त्रालङ्कारसन्धानं स्त्रीपुंसोश्च कला स्मृता ॥

अनेकरूपाविर्भावकृतिज्ञानङ्कला स्मृता ।
शय्यास्तरणसंयोगपुष्पादिग्रथनङ्कला ॥

द्यूताद्यनेकक्रीडाभी रञ्जनन्तु कला स्मृता ।
अनेकासनसन्धानै रतेर्ज्ञानङ्कला स्मृता ॥

कलासप्तकमेतद्धि गान्धर्वे समुदाहृतम् ।
मकरन्दासवादीनाम्मद्यादीनां कृतिः कला ॥

शल्यगूढाहृतौज्ञानं सिराव्रणव्यधे कला ।
हीनादिरससंयोगान्नादिसम्पाचनङ्कला ॥

वृक्षादिप्रसवारोपपालनादिकृतिः कला ।
पाषाणधात्वादिद्दृति स्तद्भस्मकरणङ्कला ॥

यावदिक्षुविकाराणां कृतिज्ञानङ्कला स्मृता ।
धात्वैषधीनां संयोगक्रियाज्ञानङ्कला स्मृता ॥

धातुसाङ्कर्यपार्थक्यकरणन्तु कला स्मृता ।
संयोगापूर्वविज्ञानं धात्वादीनाङ्कला स्मृता ॥

क्षारनिष्कासनज्ञानङ्कलासञ्ज्ञन्तु तत्स्मृतम् ।
कलादशकमेताद्धि ह्यायुर्वेदागमेषुच ॥

शस्त्रसन्धाननिक्षेपः पदादिन्यासतः कला ।
सन्ध्याघाताकृष्टिभेदैर्मल्लयुद्धङ्कला स्मृता ॥

... ...

कलाभिलक्षिते देशे यन्त्राद्यस्त्रनिपातनम् ।
वाद्यसङ्केततो व्यूहरचनादि कला स्मृता ॥

गजाश्वरथगत्यातु युद्धसंयोजनङ्कला ।
कलापञ्चकमेतद्धि धनुर्वेदागमे स्थितम् ॥

विविधासनमुद्राभि र्देवतातोषणङ्कला ।
सारथ्यञ्च गजाश्वादे र्गतिशिक्षा कला स्मृता ॥

मृत्तिकाकाष्ठपाषाणधातुभाण्डादिसत्क्रिया ।
पृथक्कलाचतुष्कन्तु चित्राद्यालेखनङ्कला ॥

तटाकवापीप्रासादसमभूमिक्रियाकला ।
घट्यद्यनेकयन्त्राणां वाद्यानान्तु कृतिः कला ॥

हीनमध्यादिसंयोगवर्णाद्यै रञ्जनङ्कला ।
जलवाय्वग्निसंयोगनिरोधैश्च क्रिया कला ॥

नौकारथादियानानां कृतिज्ञानङ्कला स्मृता ।
सूत्रादिरज्जुकरणविज्ञानन्तु कला स्मृता ॥

अनेकतन्तुसंयोगैः पटबन्धः कला स्मृता ।
वेधादिसदसज्ज्ञानं रत्नानाञ्च कला स्मृता ॥

स्वर्णादीनाञ्च यायार्थ्यविज्ञानञ्च कला स्मृता ।
कृत्रिमस्वर्णरत्नादिक्रियाज्ञानं कला स्मृता ॥

स्वर्णाद्यलङ्कारकृतिः कला लेपादिसत्कृतिः ।
मार्दवादिक्रियाज्ञानञ्चर्मणाञ्च कला स्मृता ॥

पशुचर्माङ्गनिर्हारक्रियाज्ञानं कला स्मृता ।
दुग्धदोहादिविज्ञानं घृतान्तन्तु कला स्मृता ॥

सीवने कञ्चुकादीनां विज्ञानन्तु कला स्मृता ।
बाह्वादिभिश्च तरणंकलासञ्ज्ञञ्जले स्मृतम् ॥

मार्जनेगृहभाण्डादेर्विज्ञानन्तु कला स्मृता ।
वस्त्रसंमार्जनञ्चैव क्षुरकर्म कले ह्युभे ॥

तिलमांसादिस्नेहानां कला निष्कासने कृतिः ।
सीराद्याकर्षणे ज्ञानं वृक्षाद्यारोहणे कला ॥

मनोनुकूलसेवायाः कृतिज्ञानङ्कला स्मृता ।
वेणुतृणादिपात्राणां कृतिज्ञानङ्कला स्मृता ॥

काचपात्रादिकरणविज्ञानन्तु कला स्मृता ।
संसेचनं संहरणञ्जलानान्तु कला स्मृता ॥

लोहाभिसारशस्त्रास्त्रकृतिज्ञानङ्कला स्मृता ।
गजाश्ववृषभोष्ट्राणाम्पल्याणादिक्रिया कला ॥

शिशोस्संरक्षणे ज्ञानन्धारणे क्रीडने कला ।
सुयुक्तताडनेज्ञानमपराधिजने कला ॥

नानादेशीयवर्णानां सुसम्यग्लेखने कला ।
ताम्बूलरक्षादिकृतिविज्ञानन्तु कला स्मृता ॥

आदानमाशुकारित्वम्प्रतिदानाश्चिरक्रिया ।
कलासु द्वौगुणौ ज्ञेयौ द्वेकले परिकीर्तिते ॥

चतुष्षष्टिकला ह्येतास्सङ्क्षेपेण निदर्शिताः ॥

Ṣukranītisāra, p. 126.

APPENDIX D

लिखितपठितसङ्ख्यागीतनृत्यानितालपटहमुरजवीणावंशभेरीपरीक्षा ।
द्विरदतुरगशिक्षाधातुदृग्मन्त्रवादावलिपलितविनाशोरत्ननारीनृलक्ष्म ॥

छन्दस्तर्कसुनीतितत्वकविताज्योतिःश्रुतिर्वैद्यकम्भाषायोगरसायनाञ्जनलिपिस्वप्नेन्द्रजालं कृषिः । वाणिज्यं नृपसेवनञ्च शकुनं वाय्वाग्निसंसूचनन्दृष्टिर्लेपनमर्दनोर्ध्वगतयो बन्धभ्रमौ द्वौ घटे ॥

पत्रच्छेदनमर्मभेदनफलाकृष्टयम्बुवृष्टिज्ञतालोकाचारजनानुवृत्तिफलभृत्खड्गक्षुरीबन्धनम् । मुद्रायोरदकाष्ठचित्रकृतिदोर्द्दङ्मुष्टिदण्डासिवाग्युद्धङ्गारुडसर्पभूतदमनं योगाब्दनामालयः ॥

P. 663, Berliner Verzeichnis II.

Prof. Weber, divides the above 3 verses into 72 divisions wrongly; he includes in these 72 the last word—'yogābdanāmālayaḥ'—as 3 Kalās, whereas the word merely explains that the number of Kalās is 72 and is not a Kalā in itself.

APPENDIX E

The 64 'mahilā-guṇe', are, according to the author of the Kalpāntarvācyāni the following:—

1. नृत्य Cp. I. 4, III. 3, VI. 2, etc.
2. औचित्य
3. चित्र Cp. VI. 6, IV. 17, III. 4.
4. वादित्र* Cp. I. 6, II. 37, III. 2, VI. 3, etc.
5. मन्त्र Cp. IX. 16.
6. तन्त्र
7. ज्ञान
8. विज्ञान
9. दम्भ
10. जलस्तम्भ Cp. VII. 28.
11. गीतनाद Cp. I. 5, III. 1, VI. 1, etc.
12. तालमान Cp. IV. 11, IX. 6.
13. मेघवृष्टि Cp. IX. 53.
14. फलाकृष्टि Cp. IX. 51.
15. आरामरोपण Cp. III. 41, VII. 20.
16. आचारगोपन
17. धर्मविचार Cp. IV. 4.
18. शकुनसागर Cp. III. 49, VII. 20.
19. क्रियाकल्प Cp. II. 72, III. 56, etc.
20. संस्कृतजल्प
21. प्रसादनीति
22. धर्मनीति
23. वर्णिकावृद्धि
24. सुवर्णसिद्धि
25. सुरभितैलकरण
26. लीलासञ्चरण
27. गजतुरगपरीक्षण Cp. I. 29, 30, II. 53, 54.
28. पुरुषस्त्रीलक्षण. Cp. I. 27, 28, II. 51, 52, IX. 20, 21.
29. सुवर्णरत्नभेद Cp. VIII. 35.
30. अष्टादशलिपिपरिच्छेद Cp. VIII. 59, I. 1, II. 3, etc.
31. तत्कालबुद्धि
32. वास्तुसिद्धि Cp. IV. 28, III. 37.
33. वैद्यकक्रिया Cp. IX. 29, IV. 29.

* Incorrectly printed as 'vādi'.

34. कामविक्रिया
35. घटभ्रम Cp. IX. 48.
36. सारिपरिश्रम Cp. I. 13.
37. अञ्जनयोग Cp. IX. 37, VII. 42, 56.
38. चूर्णयोग Cp. 'cuṇṇa-juttiṃ' (See p. 17 above).
39. हस्तलाघव Cp. III. 22.
40. वचनपाटव
41. भोज्यविधि Cp. I. 15.
42. वाणिज्यविधि Cp. VII. 60, IX. 38.
43. मुखमण्डन
44. शालिखण्डन
45. कथाकथन
46. पुष्पग्रथन Cp. VIII. 5.
47. वक्रोक्ति
48. काव्यशक्ति Cp. VII. 4.
49. स्फारवेष
50. सकलभाषाविशेष Cp. VII. 7, etc.
51. अभिधानज्ञान Cp. III. 55.
52. आभरणपरिधान Cp. III. 19, VIII. 3.
53. भृत्योपचार
54. गृहाचार
55. काव्यकरण Cp. III. 54.
56. परनिराकरण
57. रन्धन Cp. III. 23, VII. 19, etc.
58. केशबन्धन Cp. II. 20.
59. वीणानिनाद Cp. II. 36.
60. वितण्डावाद
61. अङ्कविचार Cp. I. 2, II. 3.
62. लोकव्यवहार Cp. IX. 54.
63. अन्ताक्षरिका Cp. III. 29.
64. प्रश्नप्रहेलिका Cp. I. 19, III. 28.

Berliner Verzeichnis II, pp. 663, 664.

APPENDIX F

The 64 'tantras', according to Lakshmīdhara's commentary on Saundaryalaharī 31 are the following :—

महामायाशम्बर १ श्च योगिनीजालशम्बरम् २ ।
तत्वशाम्बरक ३ श्चैव भैरवाष्टकमेवच ४-११ ॥

बहुरूपाष्टक १२-१९ श्चैव यामलाष्टक २०-२७ मेवच ।
चन्द्रज्ञानं २८ मालिनी २९ च महासंमोहन ३० न्तथा ॥

वामजुष्टं ३१ महादेवं ३२ वातुलं ३३ वातुलोत्तरम् ३४ ।
हृद्भेद ३५ न्तत्रभेद ३६ श्च गुह्यतत्र ३७ श्च कामिकम् ३८ ॥

कलावादं ३९ कलासार ४० न्तथान्यत्कुण्डिकामतम् ४१ ।
मतोत्तर ४२ श्च वीणाख्य ४३ त्रोतल ४४ त्रोतलोत्तरम् ४५ ॥

पञ्चामृतं ४६ रूपभेदं ४७ भूतोड्डामर ४८ मेवच ।
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सर्वज्ञानोत्तर ५२ श्चैव महाकालीमत ५३ न्तथा ।
अरुणेशं ५४ मोदिनीशं ५५ विकुण्ठेश्वर ५६ मेवच ॥

पूर्व ५७ पश्चिम ५८ दक्ष ५९ श्च उत्तर ६० श्चनिरुत्तरम् ६१ ।
विमलं ६२ विमलोत्त ६३ श्च देवीमत ६४ मतःपरः ॥

The names of 'tantras' 4-11, 12-19, and 20-27 are;—

4. सिद्धभैरव.	12. ब्राह्मीतन्त्रम्.	20. रुद्रयामलम्.
5. मायिकभैरव.	13. माहेश्वरीतन्त्रम्.	21. ब्रह्मयामलम्.
6. कङ्कालभैरव.	14. कौमारीतन्त्रम्.	22. विष्णुयामलम्.
7. कालाग्निभैरव.	15. वैष्णवीतन्त्रम्.	23. देवीयामलम्.
8. शक्तिभैरव.	16. वाराहीतन्त्रम्.	24. गणपतियामलम्.
9. योगिनीभैरव.	17. इन्द्राणीतन्त्रम्.	25. स्कन्दयामलम्.
10. महाभैरव.	18. चामुण्डातन्त्रम्.	26. सूर्ययामलभ्.
11. भैरवनाथ.	19. शिवदूतीतन्त्रम्.	27. चन्द्रयामलम्.

Saundaryalaharī, Mysore Government Edition, p. 80.
Oxford Catalogue p. 109.

For a variant of this list, see Nityāshodaṣikārṇava, Ānandāṣrama Series, Poona.

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,,	21	Digha	Dīgha
,,	29	Garuda	Garuḍa
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